The area of
Tongatabu, however, probably does not exceed 150 square miles, which on 161
the basis of full-blooded Tongan population, in 1921, gives the average of 65 162
individuals to the square mile, a number probably sufficient for communica- [131]
tion in the traditional way, if the bulk of the population fringed the ancient [491]
highway which ran from end to end of the island. It should be borne in [361]
mind that the ancient population lived largely on farms rather than in villages. [764]
Ancient burials are to-day found in the bush where farms once flourished.

Cook (19, vol. 1, p. 297) mentions an assemblage at an entertainment 175
on Tongatabu Island, concerning which "some of us computed, that, at this 161
time, there were not less than ten or twelve thousand people, in our neigh- 162
borhood; that is, within the compass of a quarter of a mile; drawn together, for the most part, by mere curiosity." Providing the total is not overestimated, this statement would seem at first glance to indicate a larger population for Tongatabu Island than that of the present day. But many people from neighboring islands of Tongatabu and from Haapai and Vavau were doubtless present. In reference to the population of the islands near Tongatabu in 1797 the following quotation from Wilson (65, p. 95) is pertinent: "Passing to the northward of Eoo-âije, we steered W.S.W. to the entrance, then W. by S. and W. up the harbour, followed by the above canoe and several others, which put off from the eastern part of the main island and the islets that lie scattered upon the reef."

The statement of Cook (19, vol. 1, p. 246) that "at least three thousand people" assembled at the entertainments on Lifuka Island indicates a population in 1777 no greater than in 1909 when Lifuka and the neighboring islands Foa and Haano had a population of 3,565. With the rest of Haapai to draw upon as well, a crowd of three thousand people might be assembled readily enough. Cook's description of the island of Mango suggests that the population in 1777 did not much exceed the population of 42 individuals in 1906 and it is of interest to note that he found Uoleva Island, just south of Lifuka, as destitute of inhabitants as it is to-day.

The grouping of people in villages and the consequent desertion of farms 175
as residences has taken place probably since 1773, when Cook (18, vol. 1, 162
p. 213) described the country as follows: 361

> The produce and cultivation of this isle [Eua] is the same as at Amsterdam [311]
> [Tongatabu]; with this difference, that a part only of the former is cultivated, whereas [491]
> the whole of the latter is. The lanes or roads necessary for travelling, are laid out in so judicious a manner, as to open a free and easy communication from one part of the island to the other. Here are no towns or villages; most of the houses are built in the plantations, with no other order than what conveniency requires; they
> are neatly constructed, but do not exceed those in the other isles. The materials of 342
> which they are built, are the same; and some little variation in the disposition of the 175
> framing is all the difference in their construction. The floor is a little raised, and [352]
> covered with thick strong mats; the same sort of matting serves to inclose them on

[TEXT CONTINUED ON PAGE 7]

the windward side, the other being open. They have little areas before the most of them, 175
which are generally planted round with trees, or shrubs of ornament, whose fragrancy 342
perfumes the very air in which they breathe. [352]
[351]

Again, in 1777, Cook (19, vol. 1, p. 314) describes Tongatabu, as he saw
it on "an excursion into the country," in the following words: 175
361

> We found by far the greatest part of the country cultivated, and planted with 311
> various sorts of productions; and most of these plantations were fenced around.
> Some spots, where plantations had been formerly, now produced nothing, lying fallow;
> and there were places that had never been touched, but lay in a state of nature; and,
> yet, even those were useful, in affording them timber, as they were generally covered [643]
> with trees. We met with several large uninhabited houses, which, we were told, [491]
> belonged to the king. There were many public and well-beaten roads, and abundance [491]
> of foot-paths leading to every part of the island. [487]

The nearest approach to a village, observed by Cook was the capital Mua 175
(the modern villages of Lapaha and Taʻakamotonga), where the principal 361
chiefs of Tongatabu dwelt, especially when attending the court of the
Tui Tonga.

A map of Tongatabu Island, published in 1810 by Vason (60), although 491
doubtless inaccurate as to details, shows the great road traversing the length
of Tongatabu and the numerous lanes separating the farms.

La Perouse (47, vol. 2, pp. 171, 172) describes the south coast of Tonga- 175
tabu as follows:

> As the wind was to the north, I steered towards the south coast of the island, 175
> which is very free from danger, and may be approached within three musket-shots. 133
> The sea broke furiously all along the coast; but the breakers were upon the shore;
> and beyond them we perceived the most luxuriant orchards. All the island appeared 175
> to be cultivated; the fields, which were beautifully green, were bordered with trees 311
> . . . The huts of the islanders were not collected together in villages, but dispersed 361
> over the fields, like the farm-houses in our best cultivated plains.

In 1793 conditions seemed to be unchanged, for Labillardière (37, vol. 2,
pp. 135, 136, 153) says:

> In advancing to the westward, we went over a vast enclosure formed by palisades, [417]
> the stakes of which, placed obliquely, were pretty close to each other, and in the
> middle of which grew the bread-fruit tree, the plantain-tree, the fan palm, *corypha* [245]
> *umbraculifera*, &c. Farther on, we found, within a fence not near so extensive, a [417]
> small hut, of a conical form, in which we learnt were deposited the remains of a chief [764]
> lately dead; and we were also informed that it was forbidden to enter it.
>
> We then walked, for near a quarter of an hour, along a narrow road lined with [622]
> palisades on both sides: we followed it as far as a very large lawn, where King [491]
> Toobou was shortly to make his appearance. . . .
>
> We soon after entered the fields, where we saw each individual's ground divided
> into small plots, surrounded by palisades, and in a high state of cultivation.

The missionaries who took up their residence in 1797 speak of certain 175
places as the residences of chiefs—for example, Haateiho and Mua (spelled 361
797

On the whole, judging from what was learned of Matauvave's duties, 634
it would seem better to regard him as a sort of steward or director of works 173
for the Tui Tonga rather than a true governor or viceroy. 643

THE LIFE OF THE TUI TONGA

The residence of the Tui Tonga was called, apparently metaphorically, 643
Olotele—a name which occurs outside of Tonga (Olotele, a mountain in 644
Tutuila, Samoa; Olokele, a mountain in Maui, Hawaii). The word Olotele
embraces more than the house and house-mound of the Tui Tonga, for it
was interpreted also as *malae* or green of the Tui Tonga. Various localities
called Holeva are said to have been places where the Tui Tonga resided,
the name being used like Pangai for the residence of the Tui Kanokupolu.

The earliest Tui Tonga had their capital in central Tongatabu, the tenth 361
and eleventh Tui Tonga at Heketa in northeastern Tongatabu. With the 643
twelfth king the capital was transferred to Lapaha on the eastern shore of 175
the great lagoon of Tongatabu. Lapaha and the adjoining village of Tatakamotonga
are spoken of as Mua (First) in reference to their constituting
the capital. The actual place at Lapaha at which the Tui Tonga "reigned,
afiu," or presided ceremonially, was called Ahofakasiu.

Portable houses (*falefata*) were erected for the Tui Tonga at places 644
where he might wish to sojourn. These consisted of the various sections of 342
such parts as the roof, sides, and posts, so prepared that they could
be readily put together in a day. When the Tui Tonga's daughter became 644
sick, she was moved into a new house, built specially for the emergency, 342
and called, *faletolia* (*tolia*, satisfied in mind). Another name given to this 758
house was *falevakaipuluhi* (*fale*, house; *vakai*, to take care, vigilant; *puluhi*,
sickness, referring only to the Tui Tonga and his immediate blood kin).

The earliest Tongan mention of a Tui Tonga away from his home island 643
of Tongatabu is that of Momo, the tenth ruler, whose visit to Eueiki Island, 175
nearby, is described (26, pp. 71-75). Tuitatui, his son, is also pictured as 484
fraternizing with his boatmen off the shores of Eueiki. Later he dies on
Eua Island (op. cit. pp. 45-47).

Talakaifaiki (Samoan Tala'aifei'i) resided part of the time in Samoa 643
where there were dwellings constructed for him on both Upolu and Savaii. 648
He was the last Tui Tonga to reside in Samoa, for he and his officers and 175
troops were expelled by the Samoans under Tuna and Fata. The Tui Tonga 484
before him may have also resided in Samoa (36, vol. 1, p. 468).

Tatafueikimeimua made at least one visit to Samoa in seeking the hand [584]
of a beautiful woman (26, pp. 55-60). Kauulufonua I, the next king known [721]
to have travelled, is reputed to have waged war throughout the Tongan
domains, in Samoa, Uvea, Futuna, and Fiji, and to have sent governors to
various parts of the Tongan kingdom including Uvea. The Tui Tonga

rank the head of the house, the seat *matuloki*, was given to him, the host, 592
if a chief, taking his proper place to the right of the ranking guest, if a 554
matapule, at *d*. If the host were a commoner and a chief should enter, the 574
host sat outside the house. If a man should sit in a place to which his rank 565
did not entitle him, the ranking man present, would order him to his proper 554
place. If a man should occupy a place inferior to his rank, he was invited 576
by the person seated at *matuloki* to occupy his proper place. As every man knew his correct place without being told, to sit in the wrong place was not only an error, but a presumption.

[342]

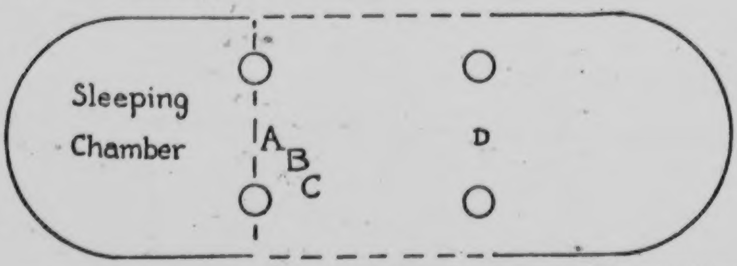

FIGURE 2.—Sketch showing manner of seating within the house: *a*, place of highest honor; *b*, place next in rank; *c*, place for chief third in rank; *d*, place for seating matapule.

On ordinary occasions, in the representative household, food was not 264
eaten at any one place or by the household as a group. Each person ate where
he chose, but always outside the dwelling house, often in the kitchen house.
On special occasions, as when guests were present, leaves or mats were spread 264
at a definite place and a seating arrangement was observed as shown in 574
figure 3. 554

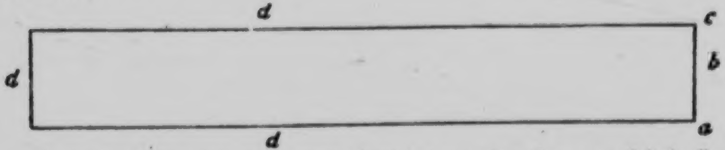

FIGURE 3.—Sketch showing manner of seating at eating places: *a*, *uluipola* (head in coconut thatch), reserved for the ranking person present; *b*, *c*, *d*, places of decreasing rank, called *tafaaki pola* (coconut leaf thatch at the side).

The structural differences in the houses of chiefs and commoners are 342
described by McKern (43). 114

The garment worn by men, women, and children of all social stations 291
was the *vala*, a rectangular piece of tapa wrapped around the loins and hang- 565
ing from the waist to the ankles or above them. According to one informant

the order of family right to the craft, was severely criticized and socially pun- 463
ished by his family and even by his neighbors. The informant was in doubt 428
as to whether the confirming chief would override such an illogical choice. [626]

If the male members in the family of a *tufunga* lack aptitude, ambition, or any other necessary quality. or show decided inferiority in comparison with someone outside the family, this outsider, following a presentation of gifts to the *tufunga* (from the applicant's family), may be chosen to succeed to the order. This appointee's sons then continue to carry on the particular *tufunga* tradition and practice.

All the people of a village contribute toward the building of the chief's 622
342
house under the direction of a single *tufunga*. 466

Some living representatives of *tufunga* families in Lifuka Island, Haa- 463
pai, are as follows: 551

Josiah Paluto, *tufunga langafale* and *tufunga lalava*, his father, Job Femuiaki, his grandfather and his great-grandfather were also *tufunga;* Ngauamo, *tufunga vaka;* Femuiaki, *tufunga langafale;* Mailau Fuopau, *tufungataomaka*.

According to a Vavau informant, carpenters were called the "Children 335
of Tangaloa Tufunga," that is, "Tangaloa the Artisan." A tradition states [173]
that before the time of Ulukalala, the carpenters were driven from Vavau
during a war and went to Fiji to settle and that there they built a fort, so
strong that the Fijians could not take it. This brief snatch of legend sug- [467]
gests a sort of organization on the part of the carpenters, but at the present
time there is nothing in the nature of a carpenters' guild.

Only one person in a family held the title which went with a trade. As 554
usual, the title seems to have descended most frequently from the father to 463
the eldest son. Thus the predecessor of Eke, a boat builder of the Hihifo 428
district, Tongatabu, was his mother's father, who also was Eke—a title which is bestowed by the chief Ata. The present Eke had the title conferred upon him by the present Ata. Eke is of Samoan extraction and of matapule rank; in fact, the name Eke is a matapule name. An ancestor of the present Eke is believed to have come from Samoa in the time of Tohuia, the Samoan mother of Ngata, the first Tui Kanokupolu.

The father, paternal grandfather, and a great-grandfather of Fakauho, 554
another house builder of the Hihifo district, all bore the same title and were 335
all carpenters. The present Fakauho, popularly known as Fiso, had his title 428
conferred upon him by the present Ata about 1910. Fakauho is also a [333]
stone mason and constructs stone burial vaults (*fonualoto*). Should the [764]
chief Ata want a house built, he orders the Fakauho to do the work. Faka- 622
uho's assistants are his relatives, but Ata orders commoners to help in the 342
rough and heavy work. 466
335
[602]
[565]

rough and heavy work. He feeds them with the best of foods. When the 335 622
work is over, he makes a handsome present of fine mats and other objects 342
to the chief carpenter. A carpenter, even if dissatisfied with the conditions, 466
may not throw down his tools—as is done in Samoa. A carpenter may [465]
build houses for matapules and commoners as well as chiefs. Only rarely [171]
he builds a house for a commoner, and only when the commoner is so for- 342
tunate as to possess something suitable as a present. Most commoners erect 565 335
their own humble dwellings. The matapules, however, invariably having plenty
of worldly goods, can well afford to pay the carpenter.

Burial vaults made of six slabs of coral limestone forming a rectangular 764
box are the work of stone masons called *tufunga taomaka*. Mariner limits 333
the stone mason to the *mua* and *tua* classes but Fakauho, who is at the same 349
time mason and carpenter, is a matapule—perhaps a modern exception. [565]

FISHING

Communal fishing (*pola*) in Tonga is practiced on a large scale. In a 226
seaside community a *toutai*, to whom the special name of *pulepola* (ruler of 621
the *pola*) is applied, organizes the fishing. He gets a number of men (*kauleo*) 464
to assist him in supplying of materials and constructing the apparatus. In a
pola held near Nukualofa on February 12, 1921, about forty of these men
directed the activities of more than a thousand people:

On February 9, the *kauleo* with their wives and children, headed by the
pulepola, assembled at the appointed place and for two days made prepara-
tion. Before noon of February 12 the apparatus, including a huge fence of
coconut leaves, was completed. Meantime all the countryside, men, women,
and children, had gathered on the beach to take part in the fishing. The [643]
pulepola, the district chief, and the *kauleo* caught two baskets of fish which [651]
were sent to the Queen by two boys on horseback. After this tribute was
made, everyone kept what he caught, even those who had taken no hand
in the construction of the apparatus. The *kauleo* and the *pulepola* were well [302]
oiled, girded with good mats and *sisi* and wore flower garlands about the [291]
neck. The rest of the people were dressed in ordinary working clothes. [293]

Each *tofia* (hereditary lands of a chief) had exclusive rights to the *pola* 226 621
grounds (*tanungapola*) on its waterfront and any community fronting on 423
the shore could at will construct *pola* on its waterfront. Inland communities [438]
did not take part, obtaining fish from seashore peoples of the same chiefly
districts.

If the shore lines of a chief's territory did not possess the sandy bottom 226
essential to the *pola* construction, he could seek permission to use a neighbor- 621
ing *tanungapola*. Should permission be granted, the chief of the *tofia* 628

administered by superior chiefs anciently, and now, by the established 466
Government. It was no doubt the system by which labor was requisitioned
for the construction of the great royal tombs, the pigeon mounds, the great
trilithon, and other works for royal or public purposes. The account of
Matauvave, the Tui Tonga's steward in Haapai, is a good example of the
working of the system. (See p. 69.) A rebellion against the oppressive- [664]
ness of this system in early times is cited by Thomson (54, pp. 294, 300).
Wilson mentions the *fatongia* (*fadangyeer*) or tax on labor and states that [622]
inferior chiefs sent men two or three times a week to labor for the Tui [643]
Kanokupolu ("Dugonagaboola"). He also says (65, p. 384, liii):

> In improvements and civil government the people of the Friendly Islands appear superior . . . their lands better cultivated, their roads neatly maintained, and their country generally enclosed with reed fences; property also appears more protected, and no arbitrary exactions noticed; . . .

In 1797, according to Wilson, there were three main districts in Tonga- 622
tabu, each governed by an absolute ruler: the northwestern, Hihifo (Aheefo) 634
district, ruled by the Tui Kanokupolu; the middle, Mua district, ruled by Fatafehi (Futtafaihe) probably the Tui Pelehake; and the southeastern, Hahake (Ahoge) district, ruled by Vaharlo. Subdivisions of these districts were ruled by inferior chiefs. Perhaps in some measure the boundaries of these three districts coincided with the three modern districts (*vahe*) of Hihifo, Loto (middle), and Hahake. To what extent these districts were administrative rather than purely geographic is not clear.

The following account of the origin of the name Pukotala gives a pic- 622
ture of the method of transmitting orders from a chief to his tenants: 203
173
103

> On the island of Haano there are four villages. Starting from the northwestern end of the island, they are Muitoa, Haano or Lotohaano, Pukotala, and Fakakakai. The lord of the island, known as Tui Haa Ngana, holds sway over the first three, but Fakakakai never had a chief and as its name indicates is made up of people from different parts that have settled there. In the olden days when the chief desired to give notice to the people of some new arrangement, he summoned his attendants and matapule to Haano and told them what he wanted accomplished. A runner was dispatched to Pukotala to acquaint the folk there of Tui Haa Ngana's intentions. On the outskirts of the village was a big *puko* tree ("cottonwood") and up this the runner used to climb and yell out at the top of his voice his chief's wishes. It was from this circumstance that the place derived its name: *puko*, cottonwood tree; *tala*, to tell.

The early voyagers mention portable houses set up at convenient places 342 485
near anchorages for the reception of visitors. At the abodes of great chiefs 344
were special houses, open on all sides where meetings were held, public affairs transacted, and foreigners received in state. Tasman pictures such a house, which he describes as a raised and roofed platform (30). This is probably the type of structure designated by the Tongans of today as *falehau*.

sembled for the chief's use and comfort while he lived, were disposed of. 768
After the *fahu* took the pick of these, the *haatufunga* distributed the remainder
among important chiefs and matapules, retainers, and relatives of
the deceased, but kept a goodly share for himself, however.

The house built over a chief's grave was also called *faletolia,* according 765
to my information, which is perhaps in error. Its practical purpose was to 349
shelter the ornamental grave design (*fungaputu*) from wind and rain. The
purpose avowedly ascribed to it, however, was that of protecting the dead
chief from the sun and rain. There was no priest or caretaker in such a
house, nor was food put there. Tapa and mats might be placed in it by
way of remembrance. Such objects might be replaced with fresh ones from
time to time. Sometimes a coconut leaf screen was put around the grave
within the house.

The *falefeao* was an inferior dwelling house built near the *faletolia* of 342.
a dying chief, and used as a dwelling by his attendants. Some houses might 763
already be located conveniently near the *faletolia*; others were especially constructed
on the spot or moved from a former site. Baker's definition of
falefeao as "the house built near the god's house for the reception of the
sick" (no doubt when seeking divine intervention for a cure) would seem
a more apt definition for *faletolia,* however. He says also that the *falefeao*
may be any house built or used for those attending a superior's wants on
some special occasion.

When one was about to die and the people were sent to fetch the sand 763
for the grave, one person was sent to get a branch of the *aveave* and put
it in the place in the cemetery where the sand from the beach was to be
deposited. This was termed *ae aveave* (to plant the *aveave*). This branch
was not removed but allowed to grow.

The digging of the grave is the last of the preparations and is never 764
done while the sick person is still alive. Should the burial be postponed
after the grave has been dug, the grave is filled up and the same site dug
out afresh on the day of burial.

The funeral lights which are burned at night about a corpse are called 764
takipo. A high chief has more lights than a commoner. There are three 416
people to a torch, one to hold it, two to replenish it. The torch holders
face the body, but are not near it. The earliest traditional mention of the
takipo is afforded by the story of the death of the famous Tui Tonga Tuitatui
who reigned about 1200 A. D. (26, p. 45).

Old, torn mats (*tauangaa*) are worn as a sign of mourning for a near 765
relative. For a remote relative who is not a chief a good mat may be worn. 602
The mourning mat worn by a chief over his tapa garment is called *fakangafingafi.* 292
The generic term *taovala* applies to *tauangaa* and *fakangafingafi.*
Neither tapa nor modern textile cloth may be so worn.

2: Mariner F-5 (1806-1810) 1818
OU9 Tonga OU9

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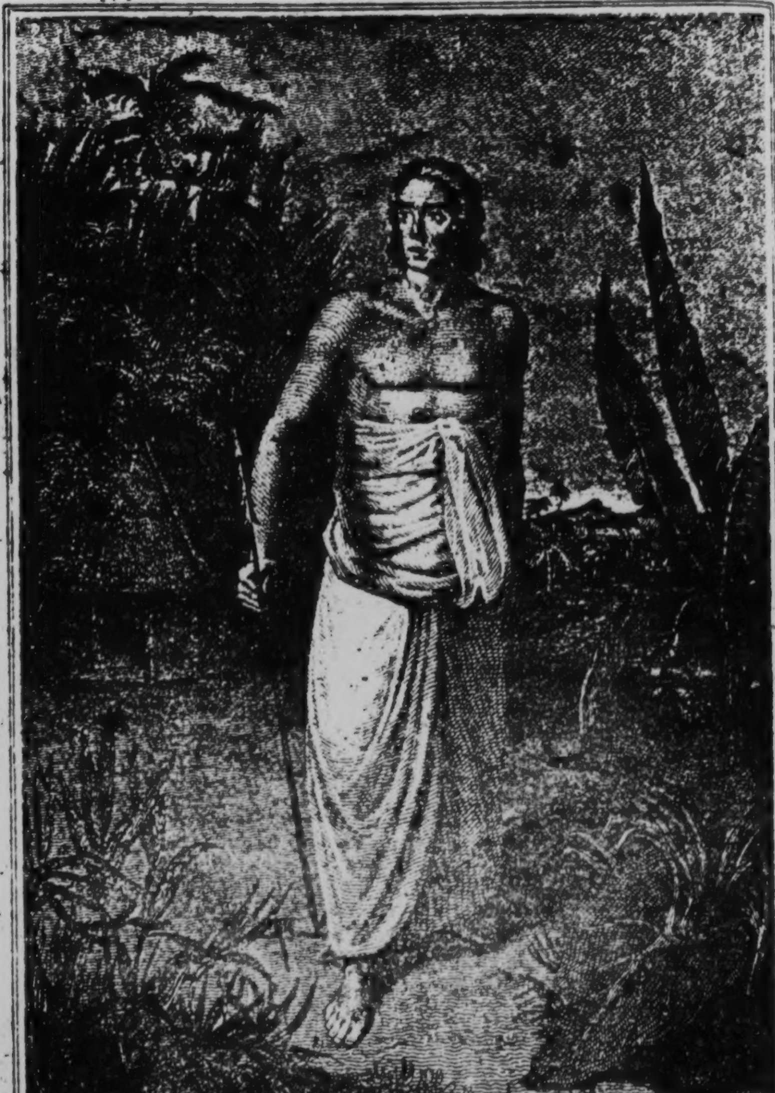

Mouchet pinx.t [illegible] Bragg sc.

Mr. MARINER in the COSTUME of the TONGA ISLANDS.

[facing p. iii]

London Published Feb.y 2, 1818, by J Murray Albemarle Street.

purpose of procuring reeds to rebuild the 727 349
fortress of Nioocalofa. This step was taken 712
by the admonition of the gods, who were [787]
consulted on the occasion through the medium
of the priests.

As the invocation of the gods, and inspiration 128
of the priests, are circumstances that will often
occur in the course of this work, it will be well
to take the present opportunity of describing
them.

The night previous to the consultation of the [787]
oracle, the chief orders his cooks to kill and prepare [262]
a hog, and to procure a basket of yams,
and two bunches of ripe plantains. These 787
things being got ready, the next morning they 793
are carried to the place where the priest resides,
or wherever he may be at that time: the priest
is sometimes previously apprised of the circumstance,
at other times not. The chiefs and matabooles [292]
clothe themselves in mats, and repair [276]
to the place where the priest is to be found: if
it be at a house, the priest seats himself just
within the eaves *; if at a distance, he seats himself
on any convenient spot of ground, and the
matabooles seat themselves on either hand, so
as would form a circle, or rather an ellipsis, if

---

* Their houses are built somewhat in form of a shed, [342]
open all round, and the eaves coming within about four feet
of the ground.

643 formerly they used bamboo) to try their skill in
585 carving with speed and dexterity, which is con-
[252] sidered a great recommendation. A considera-
412 ble part was shared out to the chiefs, each taking
177 his portion and putting it in his bosom*. The
565 remainder of the pork was then heaped up and scrambled for at an appointed signal. The woman who had laid herself down, covered over with *gnatoo*, now rose up and went away, taking with her the *gnatoo*, and the basket containing the bottles of oil, as her perquisites. Tooitonga then took his bride by her left hand, and led her to his dwelling, followed by the little girl and the other four attendants. The people now dispersed, each to his home. Tooitonga being arrived with his bride at his residence, accompanied her into the house appropriated for her†,

---

784 * It is a peculiar religious injunction in this ceremony, that the chiefs should put their pork in their bosoms, for they never
262 eat it themselves: and as it is *tabooed* by touching them, no other native of the Tonga islands may eat it: so that it generally falls ultimately to the lot of the natives of the *Fiji* islands, or other foreigners present, who are not subject to the *taboo* of Tonga. For the nature of the *taboo*, reference must be made to the second volume of the work.

† It must be noticed that every great chief has within his
595 fencing several houses, one or more of which always belongs
342 to his wives. He seldom goes to their house to sleep: he ge-
565 nerally sends for one to sleep with him; at least, this is al-
784 ways the case with Tooitonga, for nobody can eat, drink, or sleep, in the same house with him without being *tabooed* (see *Taboo*.)

276 574 political. At all cava parties, provisions are also shared out; but the habitual cava drinkers seldom eat more than a mouthful, and this they do to prevent the infusion, when drunk in large quantities, from affecting the stomach with nausea; but there are a few who will not even use this precaution. When the party is very large, it is held on a *málai*, for the sake of room; the chief who presides sitting within the eaves of the house. The time of the day is indifferent: small cava parties are frequently held by torch-light; but for religious ceremonies, whether of large or small parties, mostly in the morning. [562] [565] Women of rank never attend large public cava parties.

276 574 565 In the first place, we shall endeavour to describe the form and order in which the company and attendants sit. The chief who presides, and who is always the greatest chief present, sits about two feet, or perhaps three, within the eaves of the house*, on the matting which constitutes the flooring, with his face towards the open malái, into which the circle on either side extends. On his right and left hand sits a mataboole: both these order and arrange the ceremonies alternately in the manner directly to be shewn, and whom, for the

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[342] * It must be recollected, their houses are rather of an oval form, closed at the two ends and open in the front and back, the eaves coming within about four feet of the ground.

3: Mariner F-5 (1806-1810) 1818
OU9 Tonga OU9

who follow this profession are sailors: their 226
mode of catching fish is chiefly with the net, though they sometimes make use of the line and hook.

Langa falle, house-building. Every man 342
knows how to build a house, but those whose 331
business it is have chiefly to erect large houses [346]
on *maláis*, consecrated houses, and dwellings [344]
for chiefs. The general form of their houses
is oblong, rather approaching to an oval, the 342
two ends being closed, and the front and back 335
open; the sloping thatched roof descending to within about four feet of the ground, which is generally supported by four posts; the larger
houses by six, or sometimes more. The chief [531]
art in building a house consists in fastening the beams, &c. strongly, with plait of different colours, made of the husk of the cocoa-nut, in such a way as to look very ornamental; the colours, which are black, red, and yellow, being
tastefully disposed. The thatch of the superior 338
houses is made of the dried leaves of the sugar- 342
cane, and which will last seven or eight years without requiring repair. The thatch of the common houses is made of matting formed of the leaves of the cocoa-nut tree, and which lasts about two or three years; but being much easier to make than the other, it is more fre-
quently used. The flooring is thus made: the 342
352

342 352 ground, being raised about a foot, is beaten down hard, and covered with leaves of the cocoa-nut tree, dried grass, or leaves of the ifi tree: over this is laid a bleached matting, made of the young leaves of the cocoa-nut tree. 342 353 The house consists, as it were, but of one apartment, but which is subdivided occasionally by screens about six or eight feet high. In case of rain, or at night, if the weather is cool, they let down a sort of blind, which is attached to the eaves of the open sides of the house: these blinds are made of long mats, about six inches in width, one above another, and rather overlapping, and are so contrived as to draw up by means of strings, like our Venetian blinds, and are then concealed just within the eaves. The common houses have not these blinds, but, in place of them, a few mats hung up as occasion may require.

304 305 643 648 TA TATTÓW, striking the tattow. This operation has already been described in the last chapter, and nothing farther is here to be said, except that Tooitonga is never tattowed at the Tonga islands; for it is not considered respectful to put so high a chief to so much pain, and if, therefore, he wishes to undergo this operation, he must visit Hamoa, (the Navigator's islands), for that purpose.

322 531 TONGI ACÓW, club carving or engraving.

length of the roadway being determined by the height of the structure. Most 491
of these approaches were supported on either side by retaining walls, similar 172
to the walls of the main structure. A few were paved with stone slabs or
rough fragments of stone, or surfaced with gravel. Access to certain plat- 172
forms was by means of low stone steps placed at certain points against the 34
retaining walls. Where the low steps adjoin relatively high walls, they seem
merely to have marked the proper place for mounting rather than to have
afforded help in ascending the structure.

STONE HOUSE PARTS

172
Many ancient houses of the better class were supplied with a stone door 342
sill, made or a single oblong, roughly blocked out hexahedron about a foot in
width, which filled the base of the doorway to a height of somewhat less than [333]
a foot. Such stone sills appear in a few modern houses but it is probable
that a wooden sill was always more common.

Stone house posts and rafters were seen in only one structure—a burial 172
house situated on the top of a stone walled tomb on the island of Tongatabu. 764
The fragments now remaining of these stone house parts are smoothly dressed [333]
and show rather elaborate end mortising (p. 38).

STONE WALLS AND MONUMENTS

172
Independent walls of stone are by no means common in Tonga, but are 333
represented by several examples in fairly good condition. All these walls are
built of undressed and irregularly shaped pieces of both reef limestone and 34
"sandstone," of a size easily carried and handled.

Monumental stones form part of the retaining walls of many mounds and 172
platforms. These are placed regularly to constitute a part of the wall and 34
differ from the other wall elements only in their larger size. Usually they
stand up abruptly, at or near a platform corner, to a height considerably
greater than the average height of the wall.

Stelae of undressed basalt occur independent of other structures at certain 172
places. The only one seen is in the town of Mua (p. 93), but two others 349
are reported from the distant volcanic island of Niutoputapu. The great
trilithon, Haamongaamaui (p. 63), situated in the eastern part of Tongatabu.
stands out with paradoxical distinctness from all other Tongan structures, as
well as from those of other Pacific islands. Not only is its shape unique, but [333]
the great size of the three dressed stones employed in the structure, and the
deep mortising of the lintel piece into the uprights, render the work a surprising
oddity as well as a worthy monument to Tongan ability and ingenuity
in stone construction.

There seems to have been many named ornamental trees growing on and 172
about Kafoa. Among these were the great *ake* called Tukungaalofia, the 137
heilala called Mamatataaemaukava (The-onlookers-who-brought-no-kava),
two *hehea* trees called Hafeofafine, a large "almond" called Vakaikaevete
(Look-while-it-is-undone), and a large hala (*fala; Pandanus*) called Kikatenofa
(Squeal-and-I-will-stay).

The story mentions a row of eight stones, where pigeon snares were set, 172
as situated near the mound Kafoa and associated with the big *ake* and *tutuna* 173
trees where pigeons were made to fly, and a house called Kolonga situated 345
near the pigeon mound. Neither of these sites, if indeed they ever existed, 342
could be located. The reference is undoubtedly to a pigeon mound (p. 19).

The evidence furnished by these traditions and by the structural peculiarities 172
of the mound, gives occasion for doubt as to whether Kafoa was an 345
esi or a pigeon mound. The mention of pigeon snaring and the presence
of the central pit on the top of the mound indicates a pigeon mound. The
natives, most of whom consider the mound as an *esi*, explain the presence
of the pit in various ways: the place where a *heilala* tree was planted; the
chief's bathing place; the place where the chief sat; the cooking place; the
site of a house. But they do not satisfactorily explain why a pit should [576]
be constructed in which to plant a tree, why a chief should choose to sit
at an elevation lower than that of his attendant social inferiors (a drastic [252]
breach of Tongan etiquette) or what an oven was doing on a chief's *esi*
(only commoners cooked and they were not permitted to go onto a chief's
esi). The explanation that the pit was a bathing place is reasonable but
savors of rationalization. On the other hand, one informant, who described
the place as a pigeon mound, actually gave a more or less detailed description
of how the pit was used for that purpose. In Haapai and Tongatabu
there are mounds of this type intimately associated with typical pigeon
mounds, but some of these are consistently called *esi*.

The place is generally looked upon as an *esi* and the myth relating
of its origin favors this interpretation. It is difficult to understand why a [247]
great number of ornamental shrubs and trees, many of them highly valued
for their fragrant blossoms and some of them actually monopolized in use [565]
by chieftains of high rank, should be planted about a pigeon mound. The
translations of the names of some of these trees: The-onlookers-who-brought-no-kava, Look-while-it-is-undone, Squeal-and-I-will-stay, have no
apparent reference here to pigeon snaring. On the other hand, the mention
of kava suggests the use of the place for kava ceremonies, associated with
esi. As for the central pit, there are in Tonga other so-called *esi* similarly
equipped (p. 18), although the use of the pit remains unaccounted for.

As a matter of fact, the truth is probably generous to both explanations. The evidence clearly indicates an *esi* and the interpretation of the structure

172 horizontal, its original position probably was vertical. Tradition defines this slab as
345 the back rest of the king when seated upon the mound.

8. Siumafuauta, east of Maofanga, Tongatabu, 250 feet from low tide
172 mark near the point of land called Tukutonga. It is described by Cook
345 (4, vol. 1, p. 289) in the following words:

> 175 At this place is a work of art, which shows, that these people are capable of some design, and perseverance, when they mean to accomplish anything. This work begins on one side, as a narrow causeway, which, becoming gradually broader, rises, with a gentle ascent, to the height of ten feet, where it is five paces broad, and the whole length seventy-four paces. Joined to this is a sort of circus, whose diameter is thirty paces, and not above a foot or two higher than the causeway that joins it, with some trees planted in the middle. On the opposite side, another causeway of the same sort descends; but this is not above forty paces long, and is partly in ruin. The whole is built with large coral stones, with earth on the surface, which is quite overgrown with low trees and shrubs; and, from its decaying in several places, seems to be of no modern date. Whatever may have been its use formerly, it seems to be of none now; and all that we could learn of it from the natives was, that it belonged to Poulaho, and is called Etchee.

172 Siumafuauta stands on level ground, practically in a mangrove swamp
345 called Tafaloto, at a place where the swamp merges with the lagoon.

> The structure is a circular, flat-topped mound 18 feet high and 100 feet in diameter at the top. The walls are of rough though smoothly piled pieces of coral stone, and
> 172 stand at an angle of about 80° from the horizontal. From the southwest an inclined road 24 feet wide and 140 feet long leads to the top of the *esi*. A similar inclined
> 345 approach ascends from the east. From the top of the mound the road extends 137 feet
> 491 with a width of 27 feet, then turns northward for 20 feet with a width of 12 feet (Pl. II, *C*). Both approaches have stone faced sides exactly like those of the mound proper, and are paved with coral gravel. Near the center of the flat top is a circular,
> 172 flat-bottomed pit 22 feet in diameter and 0.9 foot in depth, walled on the sides with
> 345 vertical slabs of crudely dressed stone. Individual stones in this ring do not exceed 3 feet in length and are from 0.4 foot to 0.7 foot in thickness.

Except in type of elevation, Siumafuauta resembles Kafoa and, like Kafoa, is the center of controversy as to its original intent and use. Some
[491] native residents refer to it as an *esi;* others, as a pigeon mound. Those explaining it as a pigeon mound cite as evidence the central pit and the presence of undisputed pigeon mounds in the immediate neighborhood which seem formerly to have been connected to Siumafuauta by roads paved with coral gravel.

173 On the other hand, an old tale has it that the Tui Tonga Pau, one of the later kings of the ancient dynasty, came to dwell at the point called Tuku-
172 tonga in order to superintend the building of a proposed causeway crossing
345 the lagoon to Mua, the traditional capital of the Tui Tonga. His sister,
[342] the Tui Tonga Fefine, whose name was Siumafuauta, came with him. The king then built the large mound as a foundation of a house for his sister

who lived there until Pau died and the causeway project was abandoned. 173
This narrative does not account for the central pit of the mound (Tongan 172
houses did not have pits within them), nor does it explain why the Tui 345
Tonga Fefine should have had such a grand foundation for her house at 342
this place of temporary dwelling, while neither she nor any other Tongan
was accustomed to large elevated platforms at their places of permanent
residence. There is no evidence on the Tukutonga side of the lagoon of 173
the causeway said to have been begun by Pau and if there is any foundation 172
of truth to the story it seems more probable that a mound, already in
existence, was selected as a suitable site for the house of the Tui Tonga 345
Fefine on account of the low, wet ground. But this does not explain the
purpose for which the mound was originally built. Cook says definitely [175]
that it was called an "etchee" *(esi)* belonging to the Tui Tonga of his time, [643]
Poulaho, and that it was of "no modern date," which information sheds
no light upon the builder or the original use of the structure. It is here
classed with *esi* because of its remarkable similarity to Kafoa. It may be
that some mounds, originally built as pigeon mounds, were converted through
use into *esi*.

PIGEON MOUNDS

CLASSIFICATION

Pigeon mounds or *siaheulupe* (*sia*, mound; *heu*, pigeon snare; *lupe*, 172
wild pigeon), are natural structures, artificial structures, or artificial structures 345
situated upon natural risings exclusively employed by chiefs and their 223
retainers as places to which wild pigeons could easily be decoyed and 565
snared.

Men of less than chiefly rank often snared pigeons for food using the *heu*, a large, two poled net which did not necessarily involve the use of any sort of mound. But pigeon snaring as participated in by chieftains was a highly organized sport for which the mound was deemed essential. As a matter of fact, the practical purpose of the mound is not altogether clear, unless it furnished the wielders of the *heu* net an increased elevation, and so increased their reach.

In describing the method of snaring pigeons, informants speak of two 172
types of mounds. Type I, present in all provinces where pigeon mounds 345
were located, possessed two essential features: (a) a circular platform of 223
stone, or of earth, supported by stone retaining walls, rising several feet 128
above the surrounding ground; (b) a centrally located pit averaging 20
feet in diameter, as deep as the artificial mound was high, and laterally
lined with perpendicular retaining walls of stone.

172 34 the compass. Many of the undressed stones in the body of the platform are sufficiently large to require several strong men to move them. Most of the dressed surface slabs have been removed recently to build a wall about the Wesleyan church at Utugnake. The only large one left in place measures 5.2 feet in height, 2.7 feet in width and 0.7 foot in thickness.

172 34 333 This square structure with its sloping, slab-surfaced sides is a form of stone masonry not at all characteristic of Tongan work. Its whole character seems more in harmony with Fiji and I am inclined to believe that this is the foundation for some important building erected directly under Fijian influence, if not actually by Fijians.

172 2. Unnamed mound on the island of Mango, Haapai (fig. 16).

34 The mound is circular and flat topped, standing close to the beach at the west end of the village. It is immediately surrounded by a very shallow ditch or depression, crossed from the north by a fill of sand which is projected to constitute an inclined approach to the top of the mound. The sloping sides of the mound are faced with irregular flat slabs of coralline sandstone laid loosely, like tile.

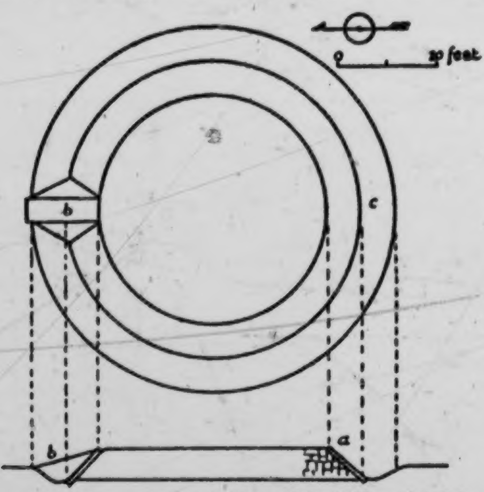

FIGURE 16.—Plan of unnamed mound, Mango Island, Haapai, height 5 feet, diameter at base 90 feet, diameter at top 70 feet: *a*, stone veneering on sides sloping about 25°; *b*, earth ramp ascending mound; *c*, moat 3 to 5 feet wide at base of mound.

172 34 173 [342] The structure is said to have been built as a house platform by Fijian warriors, brought to Mango by the Tongan king Ulukalala I, who is referred to by Captain Cook as Feenow (Finau). Whatever its original purpose, this structure is now used as a house mound, although entirely out of keeping with other Tongan *paepae*. It has certain strong Fijian features which seem

to confirm the traditional account of its construction. Tongans who have 172
been in Fiji assert that they have seen there house mounds exactly like this. 34
On the other hand, the detail of construction is very much like that of some [173]
of the pigeon mounds on Ualeva (p. 21). Fijian influence may have been
active in both places.

3. Group of mounds in the village of Malapo, Tongatabu, on the Nukualofa-Mua road.

This group includes several peculiar mounds that seem to be subject to much speculation by the inhabitants of the village. Not even their names could be ascertained.

In a row of mounds bordering the north side of the road, the first is a very large structure, the next much smaller and the others progressively smaller; the last being difficult to distinguish from the natural features of the surrounding country. At least four of these mounds are worthy of consideration.

The large mound is conical in shape with a gracefully rounded top. It is 18 feet high, 100 feet in diameter at the base, and the slope of its sides is about 25°. From all surface indications, the mound is composed entirely of earth and has no outstanding
features other than its bulk. The remaining three mounds, 4 to 6 feet in height, are [342]
more oval in cross section. They are the present sites of houses.

An old man, not resident in the village, gave to the series of smaller 172
mounds the name Afoteau (*afo*, a length of sennit-cord; *teau*, one hundred). 34
This name is said to have originated from the fact that one hundred lengths 173
of sennit cord were required in erecting on one of the mounds a house built [342]
by the chieftain Fasiapuli, the brother of Tuitatui, who, according to genealogical
evidence, was king of Tonga in about the twelfth century. The place
where these mounds stand is referred to in a mythological account which
Gifford (11) obtained, as Haangongo (the family of Ngongo). The smaller 172
mounds may be house mounds, but both the size and the shape of the large 34
mound are against such an interpretation. Nor has it the appearance of a [342]
grave mound.

4. Two mounds on either side of the Mua road at Holonga, a village near Malapo.

These very large mounds greatly resemble in size and other characteristics the large
mound at Malapo. They are mythologically accounted for as composed of the earth [173]
which Muni shook from the roots of the kava plant (13, p. 121). The absence of any
historical account of origin may indicate a considerable antiquity.

5. Hauomomo, or Paepaeomomo (*hau*, a king other than the Tui Tonga; *o*, of; Momo, name of the first traditional king of Tonga; *paepae*, house platform), at the village of Haameniuli, Tongatabu.

Hauomomo is said to be the house mound of Momo, descendant of the worm, pre- [173]
ceding the heavenly advent of the first Tui Tonga (13, p. 23). Its interior, exposed
by a road cut, is of the same kind of earth as that of the surrounding surface soil.
Nothing of special importance was found there.

172

6. Mound on the island of Euakafa, Vavau.

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This structure is a rectangular platform of earth retained by walls of dressed, rectangular slabs of stone which are set up on edge and in contact end to end. It is 32 feet long, 28 feet wide, and about one foot high. Judging from size, proportions, and position, this mound was a house platform. This platform stands less than a quarter of a mile west of Talafaiva's langi (p. 49), on the same high platform which constitutes the entire top of the island, and some informants identified it as the house *paepae* for the residence of the chieftain Talafaiva. This is the only known rectangular platform in Tonga described as a house platform, with the possible exception of Tuavavau (No. 1). These two structures are similar in no other respect.

172

7. Mound platform on the island of Namukaeiki, Haapai.

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[342]
[764]

The mound on Namukaeiki is a low, stone walled rectangular platform of earth retained by walls of roughly dressed stone slabs disposed on edge and in contact end to end. It is 30 feet long, 20 feet wide and 1 foot high. It was reported to be a langi, but Gifford (11) describes it as more resembling the so-called house *paepae* on Euakafa. The dimensions are certainly not those of a langi, if comparative data are of any value, but seem to be exactly suited to a house platform. On the other hand, it may be an *esi*.

8. Lefelefevalu (*lefelefe*, sexual organ; *valu*, eight), on the island of Eua, a short distance north of the village of Tufuvai.

Lefelefevalu is a large conical mound made entirely of earth, with a basal diameter of 150 feet. The sides slope upwards, at an angle of about 22°, to a flat top 25 feet in diameter and 22 feet above the base. Scattered about the centrally placed large mound at distances of 100 to 200 feet and with no apparent order, are five small mounds 4 to 5 feet in height and averaging 20 feet in diameter. There are reported to be eight of these smaller mounds but only these five could be located.

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Little is known about Lefelefevalu, but a myth accounts for its supernormal origin in which the goddess Lefelefevalu and her eight lovers are the principal actors. The myth would seem to be a rationalized explanation of the origin of a phenomenon concerning which no true information remains. The story is more than symptomatic of that associated with the mound called Tuavavau (p. 27). It seems probable that the two stories are local renditions of one of those standardized myths, so common in Polynesia, that attach themselves to any favorable site that seems in need of explanation.

GRAVE MOUNDS

CLASSIFICATION

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There is a threefold native classification of primitive burial places in Tonga. The mound marking the burial of an ordinary man is called *tanuanga,* that marking the burial site of a chieftain, his family and his principal retainers is called *faitoka,* and that in which members of the Tui Tonga family are buried is called langi. As is usual with native classifications in Tonga, these terms refer to use rather than to structural form. Thus the grave of a Tui Tonga, regardless of its shape, size, structural detail or other peculiarities, is a langi. As a rule, however, there were normal types of *tanuanga, faitoka,* and langis.

There has been a house on the top of platform *b* which is consistently reported 172 to have been supported originally by four posts of squared stone, connected by stringers 764 which were also of dressed stone. The single sizable element remaining is a piece of coral "sandstone," 4 feet long, 0.8 foot wide and 0.7 foot thick, which appears to have been a stringer or rafter. Its special interest is due to the fact that it retains one unbroken end which is elaborately shaped, apparently for the purpose of being mortised (fig. 20). All surfaces are carefully dressed and all angles sharply defined. This stone-posted and raftered house is said to have been called *falepoumaka* (house-of-stone-posts)—probably a recent descriptive term. The house is said to have faced south and its use is supposed to have corresponded with that of similarly placed houses (p. 31).

Platform *b* is said to be the langi proper, containing the burial vault or vaults. Platform *a* is described as the site for the house of a matapule assigned to act as [644] guardian and caretaker of the langi. [342]

Fatafehi, the daughter of Tui Tonga Tuitatui, the first female member of the family to bear that name, is said to be buried in Heketa. According to one report [173] Tuitatui also is buried here. No surface indications of vaults are visible. [644]

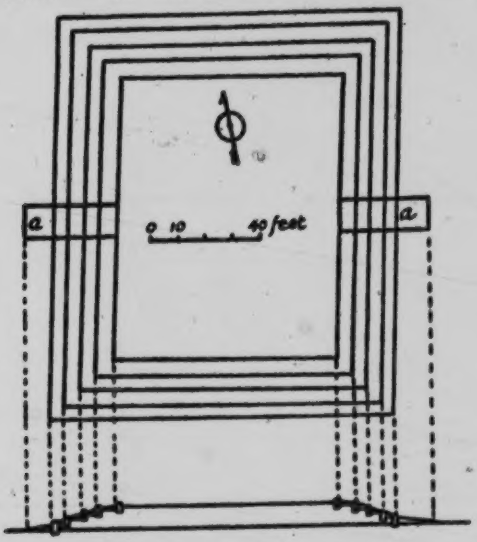

FIGURE 21.—Plan of langi Katoa at Mua, Tongatabu, height 7 feet, length of east base 140.4 feet, length of south base 120 feet, retaining walls—bottom 2.2 feet high; second 2.8 feet high, inset 5 feet; third 0.8 foot high, inset 5.7 feet; fourth 1 foot high, inset 5 feet; fifth 1.9-2 feet high, inset 5.9 feet: *a*, approaches.

7. Katoa (The-whole) in Mua, Tongatabu, Type E (fig. 21).

Katoa consists of five tiers, each of which is very low as compared with the other dimensions. The dressed stones of which the vertical sides of the tiers are fashioned are 4 to 14 feet in length and average 1 foot in thickness. The largest of these, situated on the western side is 14 feet long, 2 feet thick, and stands 5.95 feet above ground. Such monumental stones, present in the western walls of many langis, are

USE OF CAVES

172 There is evidence of a twofold use of caves in Tonga. Use for temporary
342 shelter and places of hiding was to be expected and warrants no lengthy
discussion. The use of caves as burial places, however, deserves more careful
172 consideration as it is contrary to recent customs and traditions, and not
764 altogether in harmony with the usual primitive methods of burial. It is interesting
to note in this connection that the Fijians somtimes buried their
[171] dead in caves (28, vol. 1, p. 186). Moreover, no accounts of cave burials
in Samoa were found—negative evidence hardly appropriate to use as an
argument for Fijian origin of cave burial. Tongans usually account for
[173] the occurrence of skeletal material in caves by stories of wartime refugees
who lived and died there, or who were tracked to their hiding places and
killed there. The remains are usually laid out with great care, however, and
172 in no way suggest a scene of final retribution. Referring to a cave burial
which he saw at Toula, Vavau, West (27, p. 186) says: "The native guide
764 informed me, that strangers to the land were never buried in the ordinary
766 places of interment. They were considered as outcasts, and their bodies
were, therefore, brought to this cave to be buried in the sand." On the other
hand, the skeletal material which I obtained from a cave burial on the island
of Kau, Haapai, was found by Sullivan (21) to be similar in type to material
from regular burial places. This suggests that these people were not foreigners
in any radical racial sense. The available evidence seems to indicate
that some strangers and foreigners may have been buried in caves, in districts
where caves were available, and that other caves were used as burial
sites by refugees for their dead.

172 The caves Anapusi (Cat-cave), Poutaha (Single-post) and Anakumetekava
(Stone-kava-bowl-cave), situated near the western top of a low hill
342 south of Maofanga, Tongatabu, were traditionally used as dwelling places
[825] or temporary shelters. Cat-cave is so named on account of some owls that
are said to live there and to have the supernormal power of assuming the form
of cats at will. Single-post-cave derives its name from a limestone column
which supports the entrance roof. A concave stone, said to have been found
in Stone-kava-bowl-cave, accounts for its name. All of these caves are uncomfortably
172 small as places of residence. Nevertheless, refugees from the
342 fighting forces of George I Tupou are said to have hidden there. They bear
no evidence of prolonged occupation.
726

A cave called Analahi (Large-cave) penetrates the precipitous face of the northeastern shore of Eua, Tongatabu. It is said that a group of Euan refugees lived here for a considerable length of time, the only means of access to the cave being so difficult that a single man could guard it against

an army. These refugees were finally starved out and were all killed in 172
attempting to leave the place. Examination found the cave to be a series 342
of four connected caves, owing their origin to erosion in limestone. They 726
were large, roomy, well protected from the elements, and accessible only
by a single, difficult trail. The irregular stone floor was covered in places 172
by a thin stratum, 0.2 feet thick, of mingled sand, ash, and charcoal. Some 342
seashells and a few bones of small birds and fish were present in this material.

The following Tongan caves contain burials: 172

1. Anaotua (Gods-cave), penetrating the low cliff facing the sea just 764
below the town of Toula, Vavau.

Over the floor of this large cave is a stratum of fine white sand, of a kind not found in any natural formation on this part of the coast. This artificial stratum is of barely sufficient thickness to cover the human remains found buried there. Recently large quantities of this sand have been removed for use in making grave mounds in the modern cemetery at Toula. No native information regarding the cave burials could be obtained.

2. Makatapunimatapa (*maka*, stone; *tapuni*, to shut, to put a lid upon; *matapa*, doorway, entrance), on the volcanic island of Late, on the outskirts of the Haapai group.

This cave was not visited. According to reports, it is a large sepulchral cave artificially floored with white sand, upon which the dead have been laid out in rows. The mouth of the cave is said to be sealed by means of a large, rectangular, vertically placed slab of stone, occupying a central position in the opening, and several smaller slabs placed at either side. Some of these smaller slabs have been displaced, allowing entrance to the tomb.

This account seems plausible to me as I examined a similar sepulcher on the neigh- 172
boring island of Kau—also of volcanic origin. Here a large surface lava bubble had
been broken into from the side to an extent sufficient to admit a man, by means of 764
crawling, into the hollow interior. This chamber was 11 feet long, 8 feet wide and 3.5 133
feet high. A steep slope of broken rock and debris led down from the opening to the
cave floor, which was smoothly covered with a light colored sand. A transverse wall 172
of small, rectangular stones separated the mixed material, descending from the entrance,
from the sand floor. Eight groups of skeletal material, probably representing eight 764
burials, lay on the sandy floor of the cave. The entrance had been externally sealed by means of a large flat stone which had been removed previous to my visit. The buried material showed signs of having been disturbed, but most of the bones were in a fairly good state of preservation. The only artifacts found associated with the skeletal material were five tubular beads fashioned from the wing bones of some fairly large bird.

3. Small cave in the side of the hill called Mounga, near the town of Nomuka, island of Nomuka, Haapai.

The human bones found in this cave had been so disturbed by recent vandalism that the meaning implied by their occurrence was entirely lost.

4-5. Anapekapeka, at Maifi, and Anafakaata, at Haasini, Tongatabu.

These two caves are floored with a fine white sand said to be foreign to the immediate vicinity. Human bones, resting on this sand, appear to be the remains of burials.

172 6. Fangavahe, a cave under the hill Hufangalupe, near Vaini, island of
764 Tongatabu, is reported to contain human bones.

7. Large cave in the shore cliff just west of Hoouma, island of Eua.

> According to one story, the human bones found in the cave near Hoouma are
> 172 the remains of a party of war refugees who had been discovered in their hiding place.
> 764 Their enemies built a fire before the cave mouth and those within all died from suffo-
> cation. This story is told of various caves scattered all over the Tongan group. It
> 173 seems to be a favorite means of accounting for the presence of bones in caves. A more
> reliable informant stated that the cave was a burial place and that the bodies had
> originally been placed in rows. The presence of an apparently artificial stratum of white
> sand on the cave floor, under the bones, suggests burial.

LAPAHA, THE KING'S VILLAGE

172 The village of Mua, situated on the shore of a lagoon, about 5½ miles
361 southeast of Nukualofa, was for many generations the seat of Tongan govern-
ment. As such, it was the center of Tongan life and culture, and remains the
richest spot in archaeological monuments in the entire archipelago.

172 Information regarding the ancient plan of the town was obtained from
124 old men and women who have long resided there, some of them the direct
descendants of individuals whose official business it was to keep track of just
such information. The ranking direct descendant of the last Tui Tonga was
172 one of the chief informants. Another source of information is the consider-
(127) able mass of mythological material assembled by Gifford (13). Personal
(126) observations produced the measurements and descriptions of the existing
remains of ancient structures.

172 Mua is divided into two districts (fig. 46). The northern half including
175 the area known as Maolunga is the ancient Lapaha, the southern half is the
361 comparatively recent addition called Tatakamotonga. Lapaha was divided
between the Tui Tonga, the ruling dynasty for many generations, and the Tui
[643] Haatakalaua, a chiefly family closely related to the Tui Tonga, who dominated
the political life of Tonga for a period preceding the rise of the Tui Kano-
kupolu, the present dynasty.

Cook (4, vol. 1, pp. 282-283) contributes the following interesting description of Lapaha:

> The place we went to was a village, most delightfully situated on the bank of the
> [342] inlet, where all, or most of the principal persons of the island reside; each having his
> house in the midst of a small plantation, with lesser houses, and offices for servants.
> [351] These plantations are neatly fenced round; and, for the most part, have only one
> entrance. This is by a door, fastened, on the inside, by a prop of wood; so that a person
> [363] has to knock before he can get admittance. Public roads, and narrow lanes, lie between
> each plantation; so that no one trespasseth upon another. Great part of some of these
> [351] inclosures is laid out in grass-plots, and planted with such things as seem more for
> ornament than use. . . . There are some large houses near the public roads, with spa-
> cious smooth grass-plots before them, and inclosed. These, I was told, belonged to
> the king; and, probably, they are the places where their public assemblies are held.

172
The southern and most ancient part of Lapaha was largely monopolized 361
by the Tui Tonga. The northern part, Maolunga, was the seat of govern- 643
ment of the Tui Haatakalaua. Lapaha was faced on the northwest by the
lagoon and surrounded on all other sides by a fortification consisting of a 172
ditch and an earth wall surmounted by a stockade. The ditch is now largely 361
filled in, but in places, where apparently it has not been disturbed, it is 10 feet 712
deep and 20 feet wide at the top. The earth removed in digging the ditch
forms a steeply walled bank bordering the village side of the ditch. The
stockade fence was constructed of vertically erect posts placed together
without interval and held together by means of poles placed horizontally and
lashed with strips of fau bark. There were three, straight, level entrances to
the fortified area, the names of which are not remembered. According to
one informant, the Tui Tonga Takalaua either built or rebuilt these fortifica-
tions.

Entering ancient Lapaha through the southwestern gateway, the first 172
structure encountered was the Olotele, a rectangular area enclosed by a reed 351
fence taller than a man's head and entered by a gateway, in the center of 644
which stood a post of volcanic rock, 3 feet high and 1 foot thick, called Toko- 362
matupa, said to have been a gift to one of the Tongan rulers from Vuna, a
chieftain of Houma. This area enclosed the house of the Tui Tonga, prob- 172
ably a dwelling of large size built on an earth mound. Surrounding the 644
King's house (also called Olotele) were the smaller out-buildings occupied 342
by the King's household servants. 351

All that now remains at the site of the Tui Tonga's house is a low oval
mound of earth, 50 feet in length, the house-mound of the royal dwelling.
The stone Tokomatupa, now generally known by the name of Levulevukefu,
has been recently moved from its former position and now stands under a
nearby tree. One house post from the old royal residence has been built 172
into the house of Joeli Pangia, the living, ranking representative of the Tui 342
Tonga family. It is a smoothly surfaced house post of *ngatae* wood (*Ery-
thrina corallodendron*).

Opposite the entrance to Olotele and about 35 yards distant, stood the 172
house of Kautai, the priest who ministered to the king's family god, Taufai- 346
tahi. This house is said to have had a name, which is now forgotten. The 644
large oval mound, 40 feet in length, that now marks its site is called Paepaeo- [368]
kautai (*paepae*, house-mound; *o*, of; Kautai).

North of these two houses and immediately bordering them, was the great 172
malae of the Tui Tonga—a flat, grassy, rectangular area where the king 368
held ceremonies and entertainments. The *malae* was about 100 yards long 644
and surrounded by large *ovava* trees. A very large tree of this species, under [35]
which the Tui Tonga sat during any function, was named Manaui.

This area no longer exists as such. The main road through Mua passes 172
361
[363]

172 361 [363] [368] [137] through its center. The yard of the Catholic church occupies a part of its western half and other modern houses and fenced-in yards now cross its boundaries. A few *ovava* trees are still standing and the roots of the tree Manaui are still to be seen.

172 34 [368] [643] Southeast of the *malae* is the mound called Takuilau (*taku*, Fijian term meaning land at the back of a mountain; *i*, in; Lau, a group of islands in Fiji). This is a circular mound of sand, with irregular surface nearly 50 yards in base diameter, where, some say, were buried all refuse materials intimately pertaining to the physical body of the Tui Tonga. Blood from wounds, hair, vomit or anything else that was considered to be a severed part of the kingly body was carefully preserved and buried in this sand pile. From another source comes the contradictory statement that Takuilau was the house-mound of the Tui Tonga Fefine, the oldest sister of the Tui Tonga. [342] This mound, however, is entirely unlike any house-mound observed in Tonga. Not only is its shape different but Tongan house-mounds were not built of sand unless the foundation and the land immediately adjoining were also of sand. This mound, on the other hand, has much the appearance of a burial place.

172 361 Immediately north of the *malae* was a broad clearing, having much the appearance of a broad road. It appears to have had no name but is said to have been 15 to 20 "fathoms" (about 100 feet) in width and to have been lined by large *ovava* trees.

172 368 The northern part of the fortified area is occupied by four great stone langis of the Tui Tonga (pp. 39, 56, 58).

644 Just west of these tombs was an area called Fanakava. Its boundaries cannot now be determined, but it is said that one side touched the langis and that the other side merged into the great clearing. Fanakava was a rectangular and oblong area covered by a grassy turf. Some describe it as surrounded by a reed fence, others as without a fence. It was a *malae* of the Tui Tonga, where he occasionally presided over his kava circle. There was no house, priest, or guardian of this place, yet there was one peculiar, religious tradition [696] associated therewith. Within its boundaries refugees from retribution were safe from attack (12).

172 363 There is every indication that the old road did not follow the course of the present highway through Mua. Rather, it avoided the fortified area, passing south and east of the embankment and extending east and northeast to parallel the eastern margin of the row of langis.

172 368 764 Outside the fortification, the langis continue as two parallel rows comprising 13 structures. North of these two rows are two other langis. On the flat outside of the ancient shore line are two langis, 50 feet south of which is a large *faitoka* with the lids of two stone vaults exposed to view on its

172

superior surface. All of these langis, 4 inside and 17 outside of the fortified 368
area, are considered as being in Lapaha (pp. 36-61). 764

Maolunga includes the dwelling house, outbuildings and burial place of 172
the Tui Haatakalaua family, said to have been first built and occupied by 644
Moungamotua, the first Tui Haatakalaua, and the younger brother of Tui 368
Tonga Kauulufonuafekai. 362

The dwelling house called Fonuamotu was a large thatched building of 172
the better class standing upon a low, earthen *paepae* about 50 yards from the 644
present shore line. 342

Southwest of this house stood a mound called Nukukausiala which formed 362
the *paepae* of the house called Falesinifu (House-of-concubines) where the
common wives of the chieftain dwelt. As it appears today this mound is 172
essentially a rectangular platform of earth, 110 feet long, 75 to 91 feet wide, 342
3 feet high on its land side, and 8 feet above the bottom of the lagoon. More than half of the mound stands out from the shore upon subaqueous foundations. Its sides are faced with loosely piled coral stones, many of large size. Some of the slabs are dressed and others show a rude smoothing. The eastern wall of the mound is so sloping as to permit walking up the incline. The inclination of the other three walls is about 70°.

Immediately south of Nukukausiala is a somewhat similar platform, 35 feet wide. On the lagoon side where the structure just overlaps the low-tide mark, its top is 3.5 feet above the lagoon bottom; on the land side the height is 2.3 feet. The vertical retaining walls are built partly of rough stones and partly of dressed slabs. In the seaward wall, close to the northwestern corner of the platform, is a large, flat, circular stone, 1 foot thick and 10 feet in diameter, a natural coral growth known as brain-coral or mushroom-coral. The stone stands on edge 6.5 feet above the top of the platform. It is called Filimoimaka, the name of the chieftain who brought it from near Kolonga and presented it as a gift to the Tui Haatakalaua.
Its purpose and use seem to have been purely ornamental. On this mound [644]
stood the house which served as the cohabital house of the chieftain and his [362]
common wives. No general name for this type of house, or specific name
for this particular house, could be found.

From the western end of Nukukausiala and extending out into the lagoon 172
is an irregular pile of large, rough, coralline rocks about 25 feet in width 34
and 500 to 600 feet in length, called Mounu. The formation is undoubtedly [361]
artificial. A common story accounts for this rocky isle as built up from the
discarded oven-stones of the great sailing vessel *Lomipeau*, the boat that is 172
reputed to have brought stone slabs from Wallis Island as material for one 173
of the large langis. Another account explains this pile of stones as the beginning 34
of a causeway that the Tui Tonga Pau started to build across the lagoon

172
173 from Mua to the Tukutonga point east of Nukualofa (p. 18). The first
34 account needs no comment; the second is highly improbable.

172 About 50 feet southeast of Nukukausiala is a circular, round topped sand
764 mound, 40 feet in base diameter and 3 feet high. It is the burial mound
[368] (*faitoka*) where the common wives of the Tui Haatakalaua were buried.

[644] A few yards northeast of this *faitoka* is the low, oval, earthen mound
172 where the house called Falekilikili formerly stood. This house served as a
344 place where the small, black, volcanic pebbles called ***kilikili***, used in decorating
[368] grave mounds, were sorted and oiled previous to use. Ordinarily this house
[764] was tapu to every one. Only after a death in the Tui Haatakalaua family
were the old women from among the chieftain's retainers permitted to enter
[644] this house and perform the duties associated with it. Close to the north side
172 of Falekilikili was a shallow, funnel-shaped well where the old women
312 washed their hands after oiling the ***kilikili*** stones.

The inlet from the lagoon is now nothing more than a small mangrove
172 swamp, but anciently it is said to have contained sufficient water to permit
133 large, double-hulled sailing vessels to enter and anchor. Traces of stone
172 work about the edges of this swamp suggest that the channel was at least
503 partly artificial. The stones seen are dressed coral slabs, generally showing
only their tops above ground at the swamp edge.

172 In the center of the inlet, opposite the *faitoka*, there is a small island
[133] called Vakaniua. It was at this island that the sailing vessel of the Tui
[504] Haatakalaua was moored when at the home port. The island derived its
name from the boat, the name being progressively handed down from one
[552] boat to its successor. The original boat derived its name from having carried
the chieftain Fotofili to the island of Niuafoou, north of the Vavau group.

About 50 yards east of the house Fonuamotu stood the house called Tuku-
172 motafa, the dwelling of Lauaki, ranking matapule (non-chiefly official) in the
342 suite of the Tui Haatakalaua. It is now marked by an earthen ***paepae*** of the
644 usual shape with its major axis about 35 feet long.

[362] About half way between the house of the chieftain and that of his ranking
172 matapule was the chieftain's bathing place, called Malama. It is a funnel-
312 shaped, circular basin about 20 feet in diameter, said originally to have been
[368] one "fathom" deep but now not more than 2 feet deep and quite dry. It is
not known whether the bath was naturally supplied with water, which would
necessarily be brackish, or was filled with rain water from the roofs of the
houses, said to have been the source of supply of many of these bathing
places.

172 The cemetery of the Tui Haatakalaua lay inside the ancient shore line.
764 It now consists of four stone-walled burial platforms, collectively called
[368] Loamanu, a name derived from the largest of the burial structures. (See
p. 58.)

The stone wall which partly surrounds Loamanu measures 235 feet along 172
the eastern side and 181 feet along the northern. The wall, now in ruin, is 349
5 to 6 feet wide at the base and 4 to 6 feet high; originally all the wall was [361]
probably 6 feet high. This wall is composed of rough, medium-sized pieces of coral reef limestone, piled carefully with the flattest sides outward and parallel with the slope of the wall surface, about 75°. This surface, where it remains intact, is moderately smooth and uniform. At a distance of 35 feet from the western end of the wall two upright, squared pieces of coral limestone, 1.5 feet wide, 0.8 foot thick, with heights of 5 and 6 feet, respectively, stand in the wall, separated by an open space 2.5 feet wide. These rudely dressed posts appear to mark a narrow entrance. No account could be obtained regarding this wall. It appears to be a partially complete, or partially destroyed fence enclosing the cemetery.

Just outside the western limits of Loamanu, near the shore of the lagoon 172
inlet, now represented by a *paepae* 35 feet long, 20 feet wide, and 1 foot 342
thick, stood the house called Milo. There is some doubt about the intended [362]
purpose of this place. According to one report, Milo was the residence of
one of the important matapules of the Tui Haatakalaua. The name and duties 172
of this officer were not explained although one informant rather doubtfully 342
thought that he took charge of the burial rites of deceased members of the 644
chieftain's family. Another unsubstantiated report describes the place as the priest-house of the chieftain, but several informants insisted that the Tui Haatakalaua had no god other than the family god and priest of the Tui Tonga.

East of Loamanu stood a house said to have been the dwelling place of [362]
Afu Haalaufuli, a matapule of the Tui Haatakalaua and the caretaker of the cemetery Loamanu. A report, describing this as a god-house for one of the Tui Tonga's gods, was emphatically denied by Joeli Pangia and his oldest matapule. The house-mound is now obliterated.

Tatakamotonga, the home of the Tui Kanokupolu dynasty after its rise to [362]
political power, faces the lagoon and is surrounded on two sides by a trench [712]
and moat—an extension of the older fortifications.

The house of the king, or ranking member of the family, called, generally, 172
falehau (*fale*, house; *hau*, a king of the Tui Kanokupolu dynasty), and specifically 351
Langakali, originally stood in a fenced enclosure, of undetermined 644
dimensions, which is said to have been rectangularly oblong in shape with a major axis extending northwest and southeast. This fence was called
Lululaho. The house-mound which remains is 40 feet long, 25 feet wide, [342]
and 1 foot high.

The priest's house, called Avaui, stood about 30 yards southwest from the 172
king's house. All that remains of the structure is a house-mound about 35 346 [368]

172
346 feet in length by 20 feet in maximum width. The god of that place was
Taliaitupou, or Kaliaitupou.

172 About 50 yards southwest from this god-house once stood the structure
342 called Matangipuomai, the *falefakautangata,* or sleeping house of the oldest
son of the king, while unmarried, and of the selected group of young men
644 comprising his princely suite. As the site is now occupied by a wooden
[362] dwelling of European type, nothing could be determined regarding the size
or orientation of the original house.

The site of the *falefakaufefine,* the sleeping house of the oldest, unmarried daughter of the king and of her young maiden attendants, could not be located nor its name ascertained. It is thought to have stood north of the king's house.

The *falehau,* the guest house of the king, was the largest house in Mua, reputed to have been equipped with eight large houseposts. Nothing remains but the mound, of which the major axis, extending northwest and southeast, is 80 feet in length; the maximum width is 50 feet. Its specific name is said to have been Tatakamotonga. According to some reports, it occupied the center of a grassy area, a *malae.*

172 Outside the walls of Mua, east of the district called Tatakamotonga, there
361 was a large area called Ahau (literally, of king), which seems to have been
644 an outside addition to the lands of the reigning Tui Kanokupolu. The only
place of chiefly importance located here, however, in so far as could be
172 determined, was Kikiloi, a god-house of the Tui Tonga where the priest
346 Kautai is said to have officiated for the god Taufaitaha. Cultivation has
changed the house-mound to such an extent that it was impossible to determine its size and orientation.

172 With reference to the age of Lapaha, the feature shown on the map as
the former shore line is of special interest. A survey of this old shore
133 terrace leaves no possible doubt that it once constituted the margin of the
361 lagoon. Its chief archaeological importance lies in the fact that the ends
of the moat surrounding three sides of Lapaha, terminate abruptly at this line.
This seems to indicate that this was the true shore line at the time the
fortification was built. The people of the district say that the strip of low-
172 lands between the former and present shore lines was artificially built by one
173 of the ancient Tui Tonga. The fabulous ship *Lomipeau* is said to be buried
361 somewhere under this fill. The undertaking of reclaiming land on such a
scale, without any apparent need for it, is too large to seem probable.

Dates depending on genealogies are bound to be inaccurate, but must serve where no other convincing data are obtainable. Allowing 30 years to a generation, Lapaha became the seat of the Tui Tonga about the last of the eleventh or beginning of the twelfth century. The fortifications around

413. Faala fakatau ki he muiulu: Looking (for lice) at the back 539
of the head. 183

The back of the head is the favorite camping-ground of lice, and 515
though the huntress may pick up a few strays in other localities it is at the back of the head that she is likely to make her largest bag. So used of looking for anything where it is most likely to be found.

414. Tata a tua nima: Nearness of back of the hand. 539

The back of the hand is very close to the palm, but when any- 571
thing is grasped it is the palm only that touches it. Used of one who 602
gets nothing when a close relative is distributing favors. In spite of 826
his closeness he touches nothing.

415. Teeki pea toki fakataane: Break wind and then sit properly. 539

The uncouth first word is often exchanged for *angavale*, behave 827
vulgarly. The phrase indicates one who squats down on his heels, 576
or otherwise sits carelessly in company, and whose unguarded behavior 516
is the cause of an embarrassing accident. Afterwards he sits as he should (*fakataane* is the sitting posture of the men) but then it is too late to repair the slip. Generally refers to one who after an accident takes the precautions that he should have taken before. Shutting the stable door after the horse has got out.

416. Tufotufa ulu-nima: Distributing (with) fingers. 539

Giving away grudgingly; not grasping heartily and offering with 431
good will, but taking hesitatingly and unwillingly presenting something 183
with the ends of the fingers. (Compare No. 111.)

HOME AND COMPOUND

417. Ana jiko-makii: Cave sullied with excrement. 539

Used of a place of human habitation or resort originally small and 356
inconvenient and rendered still more so by the careless filthiness of
those who use it. In connection with this it is asserted that caves [342]
were the earliest dwellings of the people. (See No. 425.)

418. Hifo i toumua: Going down to (one's own) frontage, that 539
is, one leaving his house and going down to the road straight in 351
front of his place. 461

The frontage is in line with his own property, and so the phrase comes to be used of one putting his hand to a task that is in line with his powers, undertaking that which he is well able to perform.

419. Hikihiki kaua: Shifting fence or boundary. 539

"Cursed be he that removeth his neighbour's land-mark." Boundaries 423
are tabu and must not be tampered with. For the strong to shift the 571
boundary of the weak would be a mark of tyrannous effrontery. The 829
expression is a reproach to those who change what should be inviolably fixed.

12: Vason M-3 (1797-1801) 1810
OU9 Tonga OU9

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501
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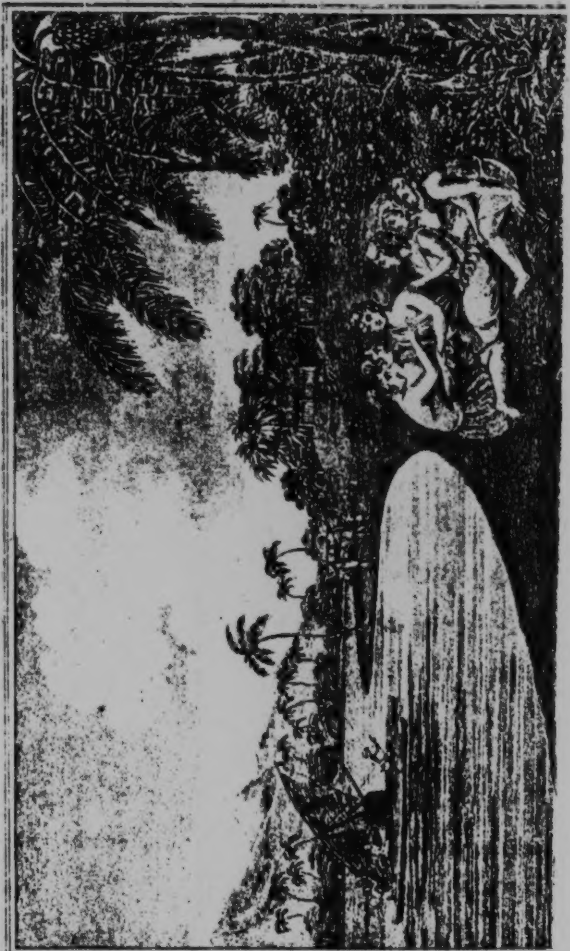
482



[p.ii] [p.i is blank]

12: Vason M-3 (1797-1801) 1810
0U9 Tonga 0U9

tempted to attack us. Their voices also were constantly heard near us. 175 But through awe of their 791 chiefs, and fear of our firearms, of which they had some knowledge, they were restrained from robbing us. We guarded our little baggage, till the last of the goods were removed; and then accompanied the porters a mile and a half, to the appointed settlement, which the two Europeans had obtained for us. It was a comfortable dwelling, in a [342] little field, inclosed with reeds neatly interwoven, and fastened to green stakes driven into the ground, which had shot forth suckers and branches, that now were entwined into a verdant fence.

By the sixth day, after the ship had come to an 175 anchor, we had conveyed on shore, the principal 122 part of the articles which were then needed, and had met with such a favourable reception from the natives, that already there appeared to us a good prospect of prosperity and peace. The Captain, in the mean time, received and paid visits to the chiefs, carried on a friendly intercourse with the natives, and obtained every requisite confirmation of their friendly dispositions towards us. Finding, therefore, he had little time to spare, as he was bound to China, from whence he was authorised, by the East-India Company, to bring back a cargo of teas, in company with the fleet, he weighed anchor for the Marquesas; whither William Crook and John Harris still retained their determination to proceed,

12: Vason M-3 (1797-1801) 1810
OU9 Tonga OU9

CHAPTER IX.

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A DAY AND NIGHT AT TONGATABOO.

Mulkaamair's house.—His family.—Bed-time.—Night.—Breakfasting on Kava.—Subjection of the lower classes.—Day as passed by the chiefs.—Evening's amusements.—Dances.—Dress and ornaments.—Musick and songs.—Superiority of the lower classes in Britain.

THE house of Mulkaamair, with whom I resided, 175
was very spacious; its length was fifty feet. It was 342
of an oval form. One large and lofty post was fixed in the centre; and round it, in an oval circle, were placed less posts, at equal distances, which formed the sides of the habitation. Upon these posts layers were fixed, to which rafters were fastened, that extended to the pillar in the middle, and united the whole building with it. The inside of 175
the roof was ornamented with warm beautiful mat- 342
ting, which was sheltered on the outside with a skil- 285
ful intertexture of the branches of the plantain tree. 352
In rainy weather, screens of matting, called Takkabou, made of branches of the cocoa-nut-tree, were fastened to the side posts, which almost reached the

175 eaves, and left only the door-way open, which was
342 never closed, night nor day.

285 Such spacious habitations are necessary for the
352 chiefs, whose household, in general, is large, as com-
175 posed of many attendants. But there are generally
342 small apartments contiguous to the house, in which
565 his wives and children lodge. One of his wives,
however, for the most part, slept with him in the
175 same room, in a space, separated from the rest by
342 inclosures of Takkabou, or matting, three feet high,
565 fitted up to the beams, that went across to the cen-
595 tre post, to keep it upright.

The household of Mulkaamair was considerable.
175 He had at different times from four to eight wives,
592 eight sons and five daughters, besides many atten-
565 dants. The children were all in great subjection
554 to him, and of different rank and dignity, according
611 to the rank of their respective mothers. For fa-
mily dignity, in Tongataboo, descends not from the
586 father, but the mother, owing, it is probable, to
896 the frequency of divorce, and of illicit intercourse.
When the day declined, about seven o'clock, if they
175 were not disposed to dance, they would retire to
513 bed, or, more properly, to recline on their matting.

But when they had retired, the most social em-
175 ployment of the day took place. As they lay reclin-
513 ing at their ease, Mulkaamair and his numerous
521 household, that lay round him, would commence
conversations, that amused them till they all fell
asleep.

13: Beaglehole & Beaglehole E-5 (1938-1939) 1941
OU9 Tonga OU9
Vavau
Pangai

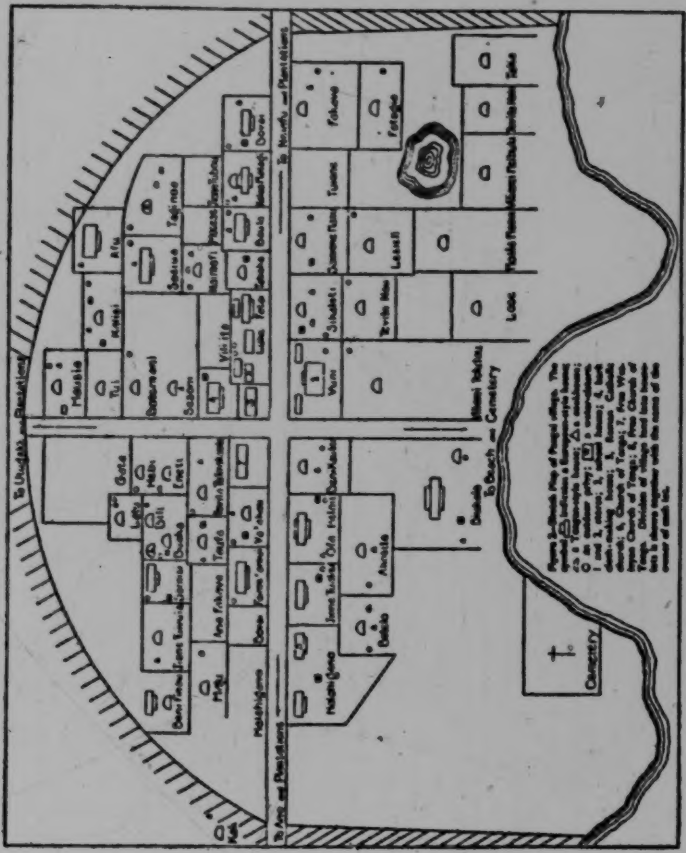
To Utungake and Plantations
To Ano and Plantations
To Neiafu and Plantations
To Beach and Cemetery
Cemetery
Mausia
Tui
Kaloni
Afu
Gata
Lotu
Halai
Emeti
Dili
Sosaia
Tapinoe
Deni Finau
Jione Tuivaiki
Ovaha
Vilikite
Mau
Ana Fakava
Tausia
Matehigano
Saom
Doves
Vuni
Sihaleti
Tuione
Fakava
Fotogia
Aaroole
Lesieli
Looe
Taliai
Ola Halaki

Figure 2—Sketch Map of Pangai village. The symbol ▭ indicates a European-style house; ▭ a Tongan-style house; △ a cookhouse; ○ an outdoor privy; ▣ a water-cistern. 1 and 2, stores; 3, school house; 4, bark cloth-making house; 5, Roman Catholic church; 6, Church of Tonga; 7, Free Wesleyan Church of Tonga; 8, Free Church of Tonga. Division of village land into home-lots is shown together with the name of the owner of each lot.

FIG. 2.

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blow at the time of, or immediately after, heavy rains when 132
the ground is soft and consequently the roots of the trees 731
have little grip in the muddy, yielding soil.

THE VILLAGE

Pangai village is a relatively self-contained economic 621
unit. The villagers look upon their village as their chief
source of satisfaction for both work and play. There is, of [628]
course, continual coming and going between Pangai and
other nearby villages. On the half dozen times each year 574
when the banana and tourist boat calls at Neiafu (population 628
in 1931, 1610 people), many Pangai people, men mostly, [162]
congregate in Neiafu to see the sights and to gossip with
relatives and friends from other villages. Each year a few 871
youths from the village go off to school in Nukualofa, capital 484
and chief port of the Kingdom on distant Tongatapu, 170
miles to the south. They travel by small motor vessel or [505]
more hazardous cutter. Sometimes they return to Pangai
for the annual vacation. Often they stay with relatives in
Tongatapu until their schooling is finished. Adults rarely 484
make the journey to Tongatapu. For the most part they 574
stay in the village, relieving monotony by occasional visits
to Neiafu.

The map of Pangai village (Fig. 2)[A] sketches the lay-out 361
of house-lots which together take up an area of about 20 423
acres. There are four church buildings. One of these is of 368
European, church-like form; another is a small simple four-square board structure; the remaining two are Tongan-style architecture. The school-house is a small frame building, bare inside and out. The children sit on the floor. The community bark-cloth-making house stands next to the school-house. It is a larger frame building that stands
empty and unused most of the year. The two stores are 366
again small frame buildings with large copra-drying plat- 417
forms and small copra storehouses alongside. 343

The style of house common in the village is also 342
indicated on Figure 2. Of the 50 dwelling houses, 36 or 72
per cent. are Tongan style, 14 or 28 per cent. are European [177]
frame houses with iron roofs. Most of the Tongan style
houses are built according to old-time native practice with [178]
coconut-sheet wall-screens and coconut mat thatching. A

[A] [See category 116, p. 9--Analyst]

342 few more of them retain Tongan shape but have frame walls
[178] and iron roofs. The old time Tongan house has the advantage
of being cool and is fairly easily built. Frame houses are
costly to build and hot to live in, but they have the advantage
of being generally free from insects and will stand against
all but the severest winds. Most of the villagers, if they were
[177] free to choose, would build for themselves a European style
frame house. It is the ambition of most, indeed, to possess
[185] just such a house before they die.

343 Practically all the dwelling-houses have an adjacent
514 cook-house. A privy is also found on most household lots.
These privies are of the type introduced by Dr. S. M. Lambert
as a method of combating hookworm and other tropical
312 diseases. For the whole village there are fourteen concrete
cisterns collecting rainwater from the iron roofs of adjacent
dwelling-houses to supply the village with water for drinking
and domestic purposes. By amicable arrangement householders
who do not have a cistern on their lot use the water
from the cisterns of close relatives or friends. The cisterns
are supposed to be kept covered as a health precaution. Most
[164] of them are open. As a consequence, typhoid is by no means
an unknown disease.

361 There is one dwelling-house only outside the village
342 limits. This is situated on the nearby plantation of its
owner, a plantation which borders on the boundary of the
village proper. This location of the dwelling-house may
[178] well represent a survival of old-time practice when the
population lived in the plantations rather than grouped
together in a village unit. This grouping of the Tongan
361 commoners in villages has apparently taken place since
565 1773 and is probably due to a breakdown of central
178 authority, consequent wars and fighting, together with the
subsequent influence of the Christian missions and the
177 traders.

The village is intersected by two main "roads" that
361 lead to the beach, the plantations, to near-by villages. By
491 "road" is meant a twenty-foot wide strip of land that is
called a road, but is grass-grown for the most part with a
narrow track down the middle wide enough for foot or
horse travel. Round the village, these "roads" are thick
in mud and hard to pass during the rainy season, even on

461 464 476 241 571

the activities of the working-group he has had his land cleared in return for giving up one year's harvest from the land.

The owner of the land may also call together working-parties of friends and relatives for a day's work on his land whenever he wants to carry out some large-scale operation, such as clearing, planting, or making copra. From five to twenty men may help him with cultivation, or any number up to thirty men and women may participate in a copra-cutting group. The leader prepares a large feast in the bush consisting of staple foods together with relishes of pork, fish, and chicken, as a token of thanks to the working group. [574] Whenever a group works together, each for his own interests, the feast has no part, but working in the group serves to lighten the burden of work. Only when the working party has come together to work to the advantage of one of its members is food prepared and offered to the group as a return for services rendered.

HOUSE-BUILDING

The villager wishing to build and own a Tongan-style house must first prepare large quantities of food for his workers and also large quantities of sennit *(kafa)* with which to fasten the house together. 342 574 283 The preparations for a large house may take at least one year to complete. During this year pigs would be obtained and fattened, the requisite timbers and poles brought in from the plantations, sennit would be made and extra amounts of food-staples would be planted.

Even for a smaller house at least six thousand feet of sennit is necessary. To prepare this, the prospective owner 342 283 collects from his plantation about one hundred coconuts of the *niu kafa* variety (nuts with an especially long husk). He is assisted by several of his friends whom he feeds while working with him. The nuts are husked and the husks placed in a large, specially prepared oven. This oven is about eight feet long, eight feet wide, and three to four feet deep. The bottom is lined with stones and further stones are placed on top of the wood. After the wood has burnt down, the coconut husks are placed in the oven, the oven

342 283 closed, and the husks baked for about four days. Then the oven is opened, the husks removed and buried in the reef shallows for a further three or four days. Then the husks are placed on a wooden base and pounded with a wooden pounder until all the inter-fibrous material is removed. The fibres are dried and are now ready for braiding.

342 283 464 476 The braiding is done by a working-party consisting of men and women who are invited to a *kava* party. The fibres are rolled on the thigh or sole of the foot and are made into three-ply braid. Half a dozen men and women, working industriously will probably braid up to one hundred fathoms in a long evening's work. Until the required amount is finished, the prospective owner will use all his spare time braiding this sennit.

342 335 463 If the house is to be well built and something to be proud of, it is necessary to engage the services of an expert builder to supervise the building, lay out the framework, fit the poles and beams securely and neatly, and to tie the more ornamental and complicated lashings. If such an expert is not a relative, he is given today for his services a gift of perhaps [465] two pounds in cash for a one-fathom house, six pounds for a two-fathom house and proportionately more for a larger house. The size of the house is referred to in terms of the length of the rectangular central portion of the house, excluding the extra length provided by the apsidal ends. [461] A two-fathom house may take some two weeks to build if the work is carried on without major interruptions. If the expert is a member of the household or a relative, he would expect only a gift of a large pig together with food-staples for his services.

342 464 476 The heavy work of building and thatching together with all minor jobs are carried out by a working-party made up of members of the household, relatives, and friends. The workers are fed generously by the house-owner. Women make all the thatching-sheets, wall-mats and floor-mats. They also help prepare the food for the workers. The division of labour and the organization of work are such that many are called upon to help before the structure is at last completed.

463 three master-fishermen; three other fishing-experts; three experts in medicine. Excepting cases where one individual may be an expert in more than one activity, this gives a total of fifteen different experts, of whom two in medicine are women, the rest being men.[11]

In some of these activities men other than the experts
often claim enough skill to carry them on at a lower than
expert level of efficiency. Thus many Pangai men can put up
[342] with some degree of neatness a small Tongan-style house. If
on the other hand, one wanted to build a large Tongan house,
[335] complete with ornamental lashings and finished to the last
detail, then the services of the recognized village expert
[757] would be necessary. Again, many doctor themselves for
small pains and aches. Should pain become acute or not
[759] readily yield to simple treatment, then one of the recognized
experts will be called in.[12] Finally, a man may fish with
[226] success indifferent or otherwise, according to what skill,
luck, or knowledge he possesses. Should it be desired
however, to carry out a large communal fishing expedition,
then it would be absolutely imperative to place the direction
of such an expedition in the competent hands of one of the
master-fishermen.

The varied skills of these experts and the compensations they receive for their services are mentioned elsewhere in the consideration of specific economic activities.

PLANTING AND CULTIVATION

241 Clearing of land to be used for gardens may be done at any time of the year. A suitable area is selected, due consideration being given to exposure to sun, shelter from prevailing winds, and relative nearness to the formed bush-tracks that lead back to the village. The trees and undergrowth are cut down and thrown to one side. When dry they may be burnt and the ashes scattered over the cleared

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[11] Gifford (*Tongan Society*, pp. 143-146) mentions the names and duties of still other artisans who are not apparently represented today among the men of Pangai village.

[656] [12] Native medical treatment is forbidden by law but is practised everywhere, even in villages that have easy access to Government medical service.

way abnormal. All days were days of hard work in the 574
gardens following the working-lull of Christmas and New 574
Year holidays. They were also days of sometimes heavy 461
rain. This also increased the agricultural tempo because a [134]
wet soil makes both planting and cultivation easier. On one [241]
day only of these sixteen was there no *kava*-making. For the
remaining fifteen days altogether forty-five *kava*-parties
were held: eight in the morning, sixteen in the afternoon
and twenty-one in the evening. The houses at which the 574
parties were held is shown in the following Table 12. 592

TABLE 12.—FREQUENCY OF KAVA PARTIES AT VARIOUS HOUSEHOLDS. 551

Household Head	PARTIES Morning	Afternoon	Evening	Total
Koloamatangi	2	3	4	9
Tevita	2	—	1	3
Ofa	2	—	—	2
Puaka	1	2	2	5
Pili	1	3	—	4
Biukala	—	3	2	5
Halahingano	—	1	—	1
Talivakaola	—	1	—	1
Afu	—	2	1	3
Eneti	—	1	2	3
Heu	—	—	2	2
Hausia	—	—	5	5
Tapaka	—	—	2	2
Total	8	16	21	45

It will be noted from this table that certain houses are 574
more popular than others as meeting places. The relative 342
popularity of a house seems to depend upon its largeness, its 592
coolness, its relative freedom from mosquitoes, the likeli- 584
hood of finding interesting company there, the frequency
with which the household-head himself begins the party, the 571
presence among the household members of a young girl
adept at *kava*-making, the general hospitality or tolerance
of the household-head to late hours (some evening parties
continue until an early hour of the next morning, even until
daylight), and finally, the extent to which the youth of the
village are using the *kava*-party as an opportunity to court
the girl of a particular household. All the houses in which

574 four or more parties were held during the sixteen day period
342 were large; the one in which nine were held is the large
592 house of the village overseer—men drift in there to pick up
any late gossip, to discuss island affairs; Biukala's house is
584 large and cool with a spacious verandah where the party
571 could continue even though the household-head retired to an
inner room to sleep; in Hausia's house, the eldest daughter, besides being a skilled *kava*-maker, was an attraction to the village youth.

574 Most of the morning and afternoon parties were small
461 and were held at the houses of elderly men (three of them church-pastors, one the village overseer) not actively engaged in daily agricultural work. The evening parties were much larger and usually attended by the men who had been gardening and working during the day. *Kava*-parties are regularly held after Sunday mid-morning church and dinner. They are also customary in the afternoons when the men feel that the seasonal agricultural work is such that a morning's work only in the bush plantations is sufficient.
[276) Visitors to a household from another village are always
offered *kava* as a gesture of welcome.

276 The roots used for making the *kava* may either be
bought in the village store or else obtained from the planta-
432 tion. The *kava*-plant is slow growing. Not all men have
[249] the patience to plant, wait for maturity, then dry properly.
Nor do all men have the money to spare for store-purchase.
276 Note was made of those contributing *kava*-root to the parties.
Some twenty men contributed: nine men once each, five men twice each, five men from four to six times each, and one
276 man fifteen times. This last man is generally considered
to be the foremost *kava*-drinker in the village, something of
574 an addict in fact, whose consistent and frequent attendance
521 at *kava*-parties is a matter for village gossip. The gossip
is tempered slightly by the fact that the addict is a school-
[875] teacher who can support his household to a large degree by
his small monetary income and rely upon the services of his father to look after the household gardens.

574 Frequency of attendance at parties is shown by the next table.

177 these clothes at any other time. Clothing therefore is a
178 blend of old and new, but when materials and clothing-styles
291 are both considered, it is again difficult to say in any simple
292 fashion whether current practice is more nearly related to
aboriginal or European custom.

178 Finally, to take but one more example, there has been
in the field of housing a transfer of both form and materials.
177 In the village today one sees frame houses with iron roofs
342 of European form, frame houses with iron roofs of Tongan
form, and thatched houses of aboriginal form and materials.
This refers only to dwelling- and sleep-houses. Separate
[343] cook-houses are uniformly of Tongan materials and form,
while the privies are uniformly frame structures of European
form. Is the present housing of the villager more European
than Tongan as regards both form and materials? Again
it is hard to give a simple answer.

177 Village attitudes in regard to both clothing and housing
178 may perhaps be best understood partly as an expression of a
substitution of new for old which, to use Parsons' phrase,
gives "an old habit of mind a new expression" or uses
"something new in accordance with something old."[34]

177 When we consider social and economic organization,
answers are equally hard. At one end of the scale, treat-
178 ment of disease is almost purely in terms of Tongan concepts
757 and materials with such exception, for instance, as in the
[304] control of a typhoid outbreak when quarantine is enforced
and European medical treatment often welcome, or in such
[743] surgical practice as the supercision of adolescent boys,
where the tendency in the village is to expect such surgery
to be carried out at the hospital in Neiafu. At the other end
177 of the scale might be placed religion, where Christianity has
178 been taken over lock, stock, and barrel, and there are
771 relatively few survivals of either knowledge or belief in
aboriginal religious forms. A Christian morality based on
Biblical teaching has also become the accepted morality of
the community.

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[113] [34] See Parsons, E. C., *Mitla, Town of the Souls*, Chicago, 1936, for a consideration of the role of this factor, among others, in culture-contact. Herskovits, M. J. has a brief but valuable discussion of this and other studies of acculturation in his book, *Acculturation*, New York, 1938.

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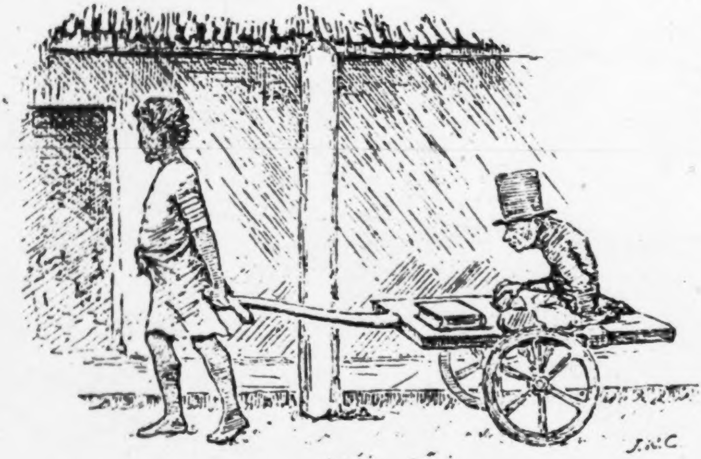
344 In Government House there were traces of a weather-
board bungalow, but the shingles had long ago rotted
away, and been replaced from time to time with odd
scraps of galvanised iron, rust-eaten through and through.
The verandah posts had fallen, bringing down the roof
with them, and the gaps in the flooring were mended with
342 bits of an old canoe. But dilapidated as the house of his
Majesty's representative was, it was a mansion in com-
parison to that of the Minister of Finance in Nukualofa,
which seemed only to hold together to clear the character
of its owner from any suspicion that an empty treasury
might reasonably attach to him.

645 It now transpired that Tukuaho had in his suite a
203 couple of spies devoted to his interests, whose business
[208] was to loaf into the houses of their acquaintances and
gauge public opinion. One of them, Peter Vi, would have
surpassed even the "Sham Squire" if they had been con-
temporaries. His fat empty face and rotund person
disarmed suspicion; and he had besides an odour of the
cloth about him, for his father and grandfather were both
793 reverend pillars of the Free Church. The latter, indeed,
was the oldest native minister, and a contemporary of the
[291] king. He paid us a visit in a hand-cart soon after we
arrived, with a black coat over his *vala*, and a tall hat,
carefully brushed the wrong way, upon his reverend head.
The poor old gentleman had lost the use of his lower
limbs and of part of his intellect; but he said a prayer
over us, and went his way, leaving a vapour of respect-
ability behind him which doubtless served to rehabilitate
such disreputable politicians as we were believed to be:
for although his son, as a Free Church minister, is dis-

affected to the present Cabinet by profession, old Peter is 793
long past polemics, for all creeds seem much alike when
one is ninety, and expecting every day to have one's
doubts explained away. Young Peter was only a third 645
clerk in the Treasury at £10 a-year, and bad at arith- 203
metic, and he wanted to be Sub-Inspector of Police at [465]



" *He paid us a visit in a hand-cart.*"

[493]
[291]

£25; so, having his way to make in the world, he was a loyal spy. The other was Tukuaho's cousin. He was an ex-convict, and looked his part of spy so well that I suspect that the conversation at once turned upon the weather in any house that he entered; but this did not prevent him from bringing blood-curdling reports of the hostility of the people, drawn probably from hearsay aided by a facile imagination.

Having despatched our spies on secret service, we had 342

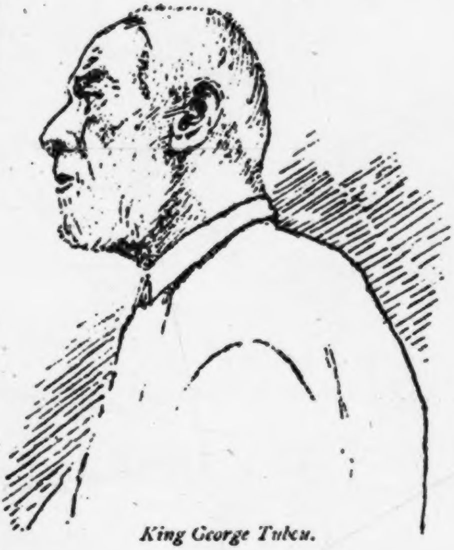
342 time to examine the three great rooms that formed our
quarters. There was a depressing air of decayed grandeur
about the worm-eaten furniture and weather-stained floor.
[353] A large room at the end became our pantry, and through
the reed screen that divided it from the rest of the house
came the incessant chatter of a Princess and two ladies
from the jail who had been told off to attend to our
517 wants. When not engaged in the menial service of washing
521 dishes, they were drinking kava and retailing the
276 local scandal in an atmosphere reeking with the fumes of
565 *sulukas*. Lest I should seem to boast of my single experience
592 of eating from the hand of a Princess of the Blood
576 574 Royal, I hasten to add that Charlotte, the lady in question,
was a member of Fatafehi's household, and since
we were his guests, it was in accordance with native
etiquette that she should take charge of the culinary
[262] department. She discharged her task admirably, and
rang the changes on fried chicken, fried sucking-pig, with
baked cocoa-nuts and raw fish[1] for dessert, in the most
practised manner.

645 After luncheon Tukuaho became gloomy. Not a soul
574 had come to greet him, and he was not accustomed to
578 unpopularity. During his last visit, he said, his arm had
been tired with shaking hands, and his digestion upset
with the quantity of kava he had been obliged to drink
with his admirers; but now he saw all his old friends
645 578 pass the door without looking in. Fat Peter's appearance

---

[1] Raw fish is described by Mariner as a delicacy, and it was provided at my special request. It is cut up into lozenge-shaped pieces, and washed in salt water. When I had overcome the natural repugnance of the idea, I found it rather good. There is no valid reason why raw fish should be nastier than raw oysters, which it much resembles in taste.

645 laying it endways to the door so that its entire length
643 could be seen from within, retired. Then Fatafehi and I
came forward. As soon as the king saw us he rose from
his seat to fetch a chair for me from several that were set
[291] round the table in readiness for the Council. He was
dressed in European clothes of rusty black cloth, and
342 appeared to have been waiting for us for some time. The
644 house was divided
[142] into three by reed
[302] partitions, and very meanly furnished: a green iron bedstead in the inner room covered with mats was the only bedroom furniture, and besides the table and office chairs in the middle room, there was only a shelf of the commonest crockery. The outer
643 room was occupied
[357]
[697] by his servants, who, I believe, were prisoners. It was
[512] characteristic of the king that while he had a well-found house in Nukualofa, he lived from choice on the barest necessaries, and spent a large portion of his income on building churches.



King George Tubou.

643 After we had shaken hands, Fatafehi announced in a
645 stentorian voice that I had brought a little sandal-wood

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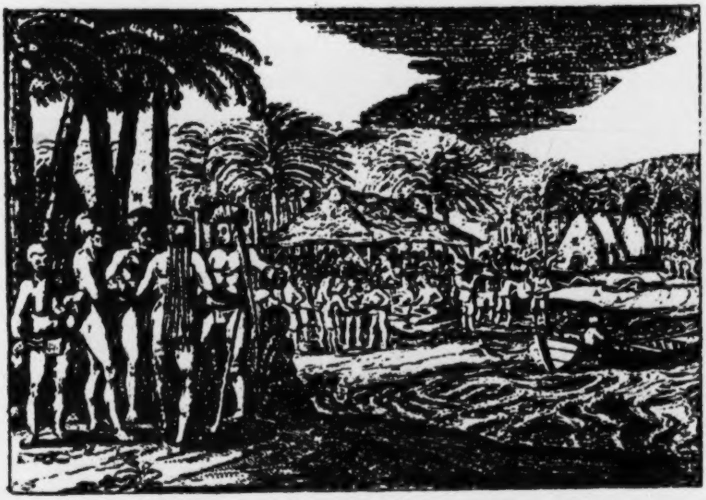
181 able than the mission primness of the Tongatabu maidens,
whose discreet deportment invites suspicion.

245 From the wharf one climbs a grassy slope, and straightway
one is in the orange-groves. The whole town is an
orange-garden. Beneath the dark shiny foliage lie piles
of rotting fruit, half-concealed by the rank couch-grass.
Some of the trees are bent with their green load, others
are white with blossom, for the crops succeed each other
342 with little intermission. Behind the long rows of trees
nestle the brown thatched houses, set down, as it were,
upon the grass like the toy cottages of a child.

133 There is no beach here. The shores of the inlet are steep
to, and the main road runs along the edge of the cliff.
344 On this road stands the "Palace," a barn-like decaying
structure of wood, from which the paint has long ago been
[352] washed by successive rainy seasons. Poor Laifone maintained
[513] the place with magnificence,—that is to say, there
[264] were marble mantelpieces (never paid for), cut-glass decanters,
china, plate, whips, walking-sticks, boot-trees,
ornaments, and saddles scattered in heaps over the furniture
and floors, very dirty and in indescribable confusion;
while the royal master of all this luxury slept on the floor,
ate his meals with his fingers, and drank his liquor simply
from the black bottle without the intermediary of a cut-glass
decanter. But now even those glories have departed,
and the house is empty except when the king pays a flying
366 visit to Vavau. Beyond the "Palace" were the stores,
[439] built on the seaward side of the road for greater facility
in shipping copra, which comes next to oranges as the chief
563 product of Vavau. These stores, kept by rival traders
441 struggling for the custom of the passing Tongans, breed by

and were repulsed with heavy loss. Thus one fact was 175
learned—the strangers could not be openly assailed with 177
safety; and the fame of Schouten's prowess, recorded in a 609
rough poem, may have served to protect his great countryman Tasman.

On January 27, 1643, Abel Tasman anchored off Hihifo in Tongatabu. The natives crowded on board his ships to barter provisions for iron, but beyond pilfering when unobserved, they did not annoy their visitors. A chief, probably the Tui Tonga, Tabuoji, entertained them very
hospitably, and invited them on shore. They found that 175
the country was cultivated like a garden. It was divided 177 361
by neat reed fences into plantations, within which stood [311]



Schouten and Lemaire buying provisions in Futuna, 1616, showing ancient mode of wearing the hair. Vide Appendix II. A
(Reduced from a rare Dutch plate in the possession of Dr Corney.)

[291]
[301]
[302]
[342]
[622]
[344]
[276]
[142]
[137]
[516]

A /See pp. 402-403 for explanation of picture--
Analyst/

apart. The poem contained five or six stanzas of ten 000
lines, and in all these there were but two differences of
one word each.

The ancient monuments of Tonga have an interest of 349
their own, since they are the rare efforts of a people who 342
build their houses and temples of materials no more enduring than grass. The tombs of the Tui Tonga, described 349
by so many travellers, are in the ordinary form of the 764
Polynesian *malae*, a quadrilateral mound faced by huge 643
blocks of stone, rising sometimes in terraces to a height of [71]
20 feet. From the account left to us by the first missionaries of the funeral of Mumui in the year 1797, we know that each of these mounds contains in its exact centre the body of a dead king. The tombs are now so overgrown with forests that it is almost impossible to photograph them. Banyan-trees have sprouted on the terraces, and have bored their roots into every crevice, covering the stones with a lacework of tendrils which, year by year, force great blocks asunder, till the form of the terraces is
almost obliterated. I tried to persuade a leading man of [784]
Mua to clear away the forest and preserve the tombs; but
I found that even in these days the tradition of the *tabu*
is strong enough to make this a sacrilege. The rule was, [769]
that after a body was laid to rest, Nature should be allowed
to shroud it from the vulgar gaze, and that no foot should trample the hallowed ground until the death of a successor. When this happened, the people reverently cleared the whole ground, and built a new tomb, and practised the extraordinary funeral rites that have been so minutely described by Mariner. But now that the office of Tui Tonga has been abolished, the tombs will never again be cleared

175 knives, beads, and nails. We sent four of our men to be hos-
177 tages on shore, and kept some of the people in the ship. These
[181] people were very active, swam and dived with great skill, like
[343] those we met with at the other islands. There were round huts
along the beach, thatched, about 25 feet in circumference, and
12 feet in height, with a doorway. . . .

[276] [The Journal contains the earliest published description of
the drinking of kava, which coincides with the present cere-
mony. Peace was established, visits of ceremony paid, and
[131] cordial relations maintained. These islands lie in 14° 56′, and
were named Hoorense Eylanden = Hoorn Island or Futuna.]

Summary as to the Plates reproduced in the Text.

[501] Plate on p. 312 shows the meeting with a native canoe at sea,
off the islands they called Cocos (Niua-tobutabu), which lay just
out of sight to their S.W.

Plate on p. 310 shows the islands in question, which they
[501] sighted the morning after meeting with the canoe, but failed to
[131] reach until the following day—*i.e.*, Cocos and Verraders Islands:
lat. 16° 10′. Here the ship's company had a collision with the
natives. The chief's name was *Latou*.

175 Plate on p. 311. This is a plate which represents several sub-
177 jects described in the text all in one picture. The two chiefs
291 are shown twice over, and the large figures on the left are in-
301
302 troduced to illustrate the descriptions of various forms of head-
342 dress. The trumpeters from the ship are blowing and the
344 drummer beating, the four or five standing figures on the outside
622 of the shed, to the left of the two chiefs sitting under it, are
276 making kava, and the chiefs themselves conversing, all at once.
609 The round or conical huts to the right are introduced merely as
516 types of dwellings.
142
137

14: Thomson G-3 (1886-1891) 1894
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[1616]

Explanation of Plate on p. 311.

A. Meeting of the two chiefs, welcoming one another with remarkable ceremony. 609 175 177 [622]

B. The same two chiefs sitting in state together on two mats under a thatched shed. [516] [344]

C. Our trumpeters and drummer playing before the chiefs, from which they derived great satisfaction (or took as a great compliment).

D. Commoners chewing a green root called by them kava. When it is chewed up water is added to it, and thus a drink is made from it, which is greatly esteemed by them. [276]

E. Shows the fashion of the houses. They are round and pointed, and covered with thatch. [342] ●

F. Shows the costume of a chief, and coiffure. [291] [301]

G G. Shows the plaits of hair worn by chiefs. [302] [622]

H. Shows an instance of frizzed hair. [142]

I. Another, whose hair stands up stiff like the bristles of a pig, more than a quarter of an ell long. [302]

K. Shows how the women wear their hair cut short. [302]

L. Are cocoa-nut palms. [137]

[APPENDIX III.

15: Thomson G-3 (1886-1900) 1902
OU9 Tonga OU9

648 that they would not be satisfied with a Protect-
orate, but would ask for annexation. I flattered
myself that I knew the little people too well to
believe the latter forecast.

As the white line of houses that marked the
361 capital grew in definition, I began to notice changes.
[344] There stood the palace and its church as trim as
[346] ever within the stone-walled compound, but to
[178] the westward, where a native could be seen
running up the British ensign, a wooden bunga-
low had replaced the picturesque old native-built
342 consulate. These had been prosperous years
178 with the Tongans; there was not a native-built
house to be seen; trim little weather-board
cottages had sprung up everywhere, and in the
vacant space beside the government offices of my
day there now stood a pretentious wooden build-
347 ing, the new House of Parliament. Naturally the
traders, who had had the erecting of all these,
had prospered too, and the line of stores on the
eastern side of the town were resplendent in new
342 paint. Two houses only in all the half-mile—
ruinous, rain-washed, and neglected—told their
own tale. They belonged to old Tungi and his
son Tukuaho, my dear lamented colleague; with
them and with their owners the years had dealt
unkindly, as I shall presently relate.

at Tongan feasts do the same. The combination of European 264
dress and fingers for knives, forks and spoons seems
strikingly incongruous to one new to the custom. At the
end of the meal a basin of water is passed around, so that
each one may wash his hands.

Perfumes are much appreciated by the Tongans and 302
traders say that they discriminate between the cheaper and
the better grades. This is clearly but a transferal of their [178]
old interest in perfumed coconut oil, with which they still
freely anoint themselves.

European alcoholic drinks are called kava papalangi 273
(foreign kava). They are permitted only to the land-holding [656]
chiefs, in a limited quantity, and to foreigners. Commoners [565]
must go without.

Stone, bone, and shell implements have been supplanted 177
long since by metal implements. Contact with Euro-American [41]
culture has resulted, however, in the rise of a new
stone implement. This is the slab of stone and the stone [415]
pounder for preparing kava root. Formerly this was chewed [276]
to prepare the brew; now, owing to Caucasian influence, it
is pounded.

The former narrow roads that traversed the various 491
Tongan islands have now all been replaced by roads of 178
standard width for wheeled vehicles. The commonest vehicle 493
is a two-wheeled cart imported from New Zealand. The [439]
Tongan usually dispenses with the board seat and sits cross-legged
on the bed of the cart. In the two large islands of
Tongatabu and Vavau automobiles have made their appearance.
They are the more numerous in the former island
where the levelness of the country makes for ease in driving.
The majority of cars are driven by Caucasians, but the Tongans [177]
are fast learning. Many Tongans have been familiar 501
for years with gasoline launches.

Vehicles keep to the left in Tonga. 494

Many Tongan houses show a hybridism in construction. 342
Often the roof will be of corrugated iron instead of the regular 177
thatch. Or again, the sides and rounded ends will be
of boards instead of cane. These innovations usually do not
affect the shape of the house. Many churches are in native 346
architecture, which employs sinnet cord instead of nails. 178

Appreciation of money is naturally developing in Tonga 177
and is undoubtedly an important factor in the process of 436
acculturation. National feeling, though probably existent 186
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22: West M-3 (1846-1855) 1865 OU9 Tonga OU9

enclosures are planted largely with useful trees, 361
such as the bread-fruit, banana, cocoa-nut, orange, [351]
citron, shaddock, and a variety of shrubs whose [245]
overhanging foliage effectually screens the pathways
from the intense heat of the sun. Very little
order is observed in placing the numerous houses
within these enclosures. There are no regular [363]
avenues or streets. In fact, a house is generally
placed where it can obtain the greatest amount of
shade from overhanging trees,—a matter certainly
of considerable importance in a tropical climate.
A casual visitor, therefore, can see but few dwellings
even when he has entered within the *loto a*, or
fence of the *abi ;* and, until he hunts them out
amongst the abounding shrubbery, he wonders
where the people live.

A Tonguese house suits the few necessities and 342
easy habits of the people, but has none of the comforts
so essential to a higher type of civilization.
With the exception of what may be called public
buildings, and a few of the dwellings of the chiefs
of highest rank, their dimensions are small, and
they contain but two apartments. They are, however,
constructed with an eye to neatness and great
strength; and when elaborately finished in the best
native style, their interior appearance is by no
means to be despised. The walls range from four 342
to eight feet in height, and are formed either of a 824
single or double fencing of reeds, which, when interlaced
and bound by sinnet to the *tokotuus*, or stakes
and posts, planted all round the eaves of the building,
resembles very much strong basket-work.
These walls are sometimes made more wind and
weather tight by the addition of a lining of plaited
cocoa-nut leaves; but, at the best, they afford a

342 sorry resistance to strong winds or heavy rains.
[824] On the other hand, there is capital ventilation; and
[354] perhaps that is of greater importance in such a hot
climate, than even freedom from the more occasional
annoyances attendant upon stormy weather.
To compensate for the lowness of the walls, the
roof of a Tonguese house is carried to a considerable
height. The rafters are closely set, and are
[824] generally made of the outer wood of the cocoa-nut
tree, or of the bread-fruit tree, the latter of which
has much the appearance of cedar wood, and has a
very pleasing and beautiful effect when nicely
finished. The large beams, to which the rafters are
[335] attached, are laid along the grooved tops of high
and durable posts, which reach about half way up
the entire height of roof. The inner ridge pole is
[353] usually ornamented by a profusion of sinnet wrappings
of varied colours and geometrically interlaced.
The roof itself is covered with a thick thatch,
[824] made from the leaves of the sugar-cane or of the
bamboo, and is perfectly water-tight. A well-built
house will last a good many years; but the thatching
requires to be renewed, under the most favourable
circumstances, about once in five years. The
[352] floor is laid with a profusion of dried leaves, which
are in turn covered over with numbers of mats
[824] made from the cocoa-nut leaf, upon which again
the finer sitting and sleeping mats are placed. No
provision is made in the interior of either native
or European house for cooking conveniences. A
[354] separate building contains the kitchen requisites,
and the heat of the climate renders a fire-place in
the dwelling house unnecessary. What is wanting
in the architectural beauty of these houses is amply
remedied by the loveliness of the natural bowers,

from whence they peep out upon the passer-by. 342
But, no doubt, the close proximity of so many trees [351]
and shrubs is exceedingly deleterious to health
during the rainy seasons; and great risk is also
incurred by the practice, when a hurricane comes
sweeping all before it, and crushing the dwellings
of the people beneath the falling trees. A some- 797
what unfortunate attempt was made, a good many 351
years since, at sanitary improvement, under the 751
direction of one of the Missionaries, on whose
behalf, however, it is but fair to state, that his
intention and instructions were far exceeded by the
action of the natives. Having stated to some of
the chiefs in the town of Lifuka, Haabai, that a
disease, then raging as an epidemic, might possibly
be lessened by a clearance of the bush, they immediately
issued instructions to cut down and destroy
every tree and bush in the town, and to throw open
a wide space from thence clear away to the sea.
Amidst the shouts and merriment of a thousand
voices, axes and fire soon did the work; but it was
very shortly found more intolerable to bear day by
day the full blaze of the vertical sun, than to
endure the more rare evils of a hurricane, or even
the miasma arising from rank vegetation. Since 342
that time it has been difficult to prevail upon 178
the people to undertake any really beneficial 361
changes in the structure and location of their
houses.

Upon landing at Nukualofa, we were kindly re- 797
ceived by the veteran Missionary, the Rev. John Thomas, and his good lady, both of whom had spent many years of varied and useful labour among the people. Their house differed but little from those of the natives, excepting in size; also

132 European constitution. In the height of the hot season, the humidity also becomes proportionably increased. One seems to live in a vapour bath all the day long. It must, however, be stated, as a set-off against this, that the resident, in any of the Tonga islands, has no need to dread the miasma of marshes, [164] or deadly swamps. Violent or fatal fevers are scarcely known. We are convinced that with ordinary care, and by having better habitations, the Missionaries, and other foreigners, would avoid a great many of the evils which at present result from the excessive humidity.

● 342 354 The houses, of the class possessed at present, are not sufficiently impervious to the outward atmosphere; while the system of ventilation is not such as to contribute to the comfort and health of the inmates. It will be enough to say, in proof of this, that there are no means of ventilation in any part of the high thatch roof of a Tonguese house. Hence, to secure the ventilation absolutely necessary for ordinary health, the walls themselves have to be made of open reeding or wattle-work. All the air, therefore, that is admitted, enters and departs below the eaves, that is to say, through the walls up to a height of seven or eight feet. Through these walls the damp, and cold rains and dews, easily strike into the interior, rusting everything in the shape of cutlery, and necessitating also a regular exposure of wearing apparel to the sun, to free it from the damp and mould, consequent upon even a few days' neglect. 342 797 Such houses cannot be healthy; and although the Missionaries have been content to occupy them, on the score of economy, it is an economy liable to very grave objection and doubt. Nothing that

22: West M-3 (1846-1855) 1865 OU9 Tonga OU9

diminishes the vigour, or shortens the life of a Missionary, or that of his family, can be an economy in the long run. 342 797

The islands are liable to hurricanes, which seem to recur, with periodical regularity, and always in the rainy season, from December to March. 132 There are gales every year in those months, both heavy and destructive enough; but the full force of the cyclone falls, upon one or other of the three groups, at intervals of about seven years. The hurricane gives but few indications of its approach. The wind rises suddenly, accompanied by heavy rain, and its duration, strength, and progress, in any given locality, depends upon its being nearer to, or more remote from, the centre of the wind circle. No tongue, or pen, can possibly convey an adequate idea of these visitations. Heaven and earth appear to be on the move; and, as for the sea, its grandeur is altogether indescribable. The rush of the irresistible tempest;—the cracking and fall of trees on all sides;—branches hurled through the air;—cocoa-nuts torn from the trees and flung in all directions with the velocity of cannon-balls;—a deluge of rain;—unusual darkness;—and the crash of falling houses;—all these attendants upon a hurricane make up one of the most dismal and terrific pictures in natural phenomena. The destruction of dwelling-houses, and other buildings, usually attendant upon these visitations, must however, be attributed not merely to the force of the wind, but also, in great measure, to the torrents of rain. During a recent hurricane in Vavau, thirty-four out of thirty-nine chapels were blown down; and yet these buildings were the very best and strongest constructed by the people. The

136 increased zest and indomitable perseverance. The
513 best way is to let him alight, if he will, and gorge
himself with your blood; for, while so employed, you can quietly crush him. When, however, they come in troops, the contest may as well be given up at once, with as much patient resignation, as one can command.

136 The natives adopt various plans for evading the
342 troublesome company of these insects. In some
513 islands, where they swarm by myriads, the people
construct small huts, to sleep in, by the sea shore. These huts are elevated upon four posts sufficiently high to overtop the bushes and low trees beneath, where the musquitoes nestle in greatest number. Here, no doubt, considerable relief is
136 obtained, owing to the airy position. Nor has it
been an uncommon practice, when the swarms
513 have been immense, for many of the people to
dig pits in the sands on the sea-shore, where, covering themselves in from the tormentors, they
136 have secured the necessary repose. Even the
scented oils, with which the natives anoint them-
302 selves profusely, do not deter the musquitoes from
alighting and making an attack: although there can be no doubt that these prevent or greatly diminish the irritation caused by their bite.

timber is obtained. The *toa*, or iron-wood tree, 313
(*Casuarina equisetifolia*,) is somewhat abundant, [137]
but it is not much used by the natives, because
of its excessive hardness and heaviness. Clubs [411)
and spears were made from it in former times.
The large posts required for buildings are obtained [342)
from the *koka*, whose timber is very durable in
the ground. It likewise affords the best firewood; [314]
and a dark liquid which exudes from its trunk,
when the bark has been scraped off, is employed in [386)
stamping patterns upon the native cloth.

Some of the most stately and magnificent trees
are only fit for firewood, and some not even for
that. Among these may be reckoned the *ovava*, [137)
a species of banyan; the *buko*, (belonging to the
natural order of *Bombaceæ*,) and the *gatae*,
(*Erythrina corallodendron*.) This latter tree is [245]
very commonly planted to distinguish the bound- [423)
aries of land belonging to different proprietors.

Having considered, so far, the natural produc- 128
tions of the islands, as a whole, we shall now resume 114
our personal narrative, by taking the reader to
Vavau, where the first years of our residence were
spent.

26: Buck D,E-4 (no date) 1935 OU9 Tonga OU9
Samoa OU8

ritual became more elaborate, and an educated priesthood officiated. Religious places of worship conformed to three main types.

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(a) Stone structures were characteristic of central, eastern, and northern Polynesia. The main features were a paved or gravelled court usually rectangular in ground plan and a raised platform at one end of the court. Elaboration varied in different regions as to the presence of curbing, walls, stone uprights, stepped platforms, stone seats, houses, images, additional courts and terraces, and special features such as the carved boards *(unu)* of Tahiti and the oracle-tower of Hawaii. Simple forms occurred in the atoll islands, the inland valleys of the Society islands, and the now uninhabited islands of Nihoa and Necker which lie to the north-west of Hawaii. The unroofed court accommodated a select congregation and the raised platform provided a sacred place about which the priests officiated.

[788]

In central and part of eastern Polynesia, the structures were referred to as *marae* but there are linguistic indications that the term *marae* more specifically indicated the court while the raised platform was usually distinguished by some form of the term *ahu*. In Easter island, the emphasis was on the raised platform with its stone images, and the term *ahu* seems to have included the whole structure with the sloping pavement in front of the platform. In northern Polynesia, the term *marae* disappeared and the Hawaiian structure received the name of *heiau*.

The thatched buildings that were erected on some courts for the housing of drums, sacred objects, images, and even priests, were accessory to the fundamental stone structure. It is probable that some of the simpler courts had no houses erected on them.

(b) Wooden structures were characteristic of the Tongan and Samoan groups of western Polynesia. They were built on the same architectural plan as the dwelling- and guest-houses which stood on stone platforms. Wooden fences were erected around the house to define a taboo area. The term *malae* (cf. Tahitian *marae)* was not applied to these sacred houses but referred to the village-green where open-air meetings of a purely social nature were held. The stone platform was accessory to the house and

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[342]
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S merely followed the pattern adopted with houses for human
171 occupation. The fundamental element of the religious
346 structure was the house in which sacred objects were kept
[342] and in which the priest might reside.

(c) No specialized structure. New Zealand, the southern region settled by Polynesians, was characterized by the absence of an elaborated pattern of religious struc-
T ture. The paved *marae* court of central Polynesia with
S its religious significance was absent, but the term *marae*
171 was applied to an unpaved social court before the village
368 meeting-house. The New Zealand *marae* thus had an affinity with the Tongan and Samoan *malae* in that it formed an assembly-ground for social functions. The religious *ahu* of central Polynesia was divorced from the social *marae*, and under the name of *tuahu (tu-ahu)* was relegated to some selected spot outside the village. The *tuahu* consisted merely of a cleared space, a wooden post, an upright stone, or even of as many as five stones set upright by human agency. More often, however, the *tuahu* was represented by a selected outcrop of rock which the hand of man had no part in providing.

T It is true that the dwelling-house occupied by the
S priest in New Zealand might be regarded as taboo by the
171 general public from its association and the priest might
346 be consulted there in his religious capacity, but there was
[784] no special complex as in western Polynesia. In New Zealand, the house was the house of the priest; but in Tonga, the house was the house of the god. Small sacred houses were erected on one or more piles, in which offerings for the gods were placed on occasions, but such buildings were isolated elements that lacked the definite relationship which existed between the raised wooden platforms *(fata)* for offerings and the religious *marae* in central Polynesia. The Maori seemed to be content to get into touch with his gods without the aid of the elaboration in religious structure which took place in the rest of Polynesia.

T Though the Polynesians created their gods from
S immaterial beings without innate material form, they
776 associated them with certain material forms that the eye
778 could see. The material representatives of the gods without
171 form of their own may be classed into two groups, animate and inanimate.

39: Gerstle & Raitt C,Q-4,5 (1952-1972)
1974 OU9 Tonga OU9

532 Tongan art by western or contemporary standards, as has so often been done; it should rather be viewed in terms of the complex social and cultural matrix from which it sprang.

Wood being the main medium used long ago, wood craftsmanship and carving in the form of canoes, houses, war clubs, spears, paddles, kava bowls, statues and wooden "headrest" pillows became a polished art in the Tongan society, performed only by highly specialized artisans called *tufunga,* whose skills were most often transmitted by heredity. As religion was a major facet of life, the Tongans had a god as a patron for each category of artistic activity. Thus, art reflected their system of religious beliefs, values and rituals, as well as their extremely structured socio-political organization. [771] [776]

● 342 283 284 The traditional Tongan house, similar to that of

[p. 9-c]

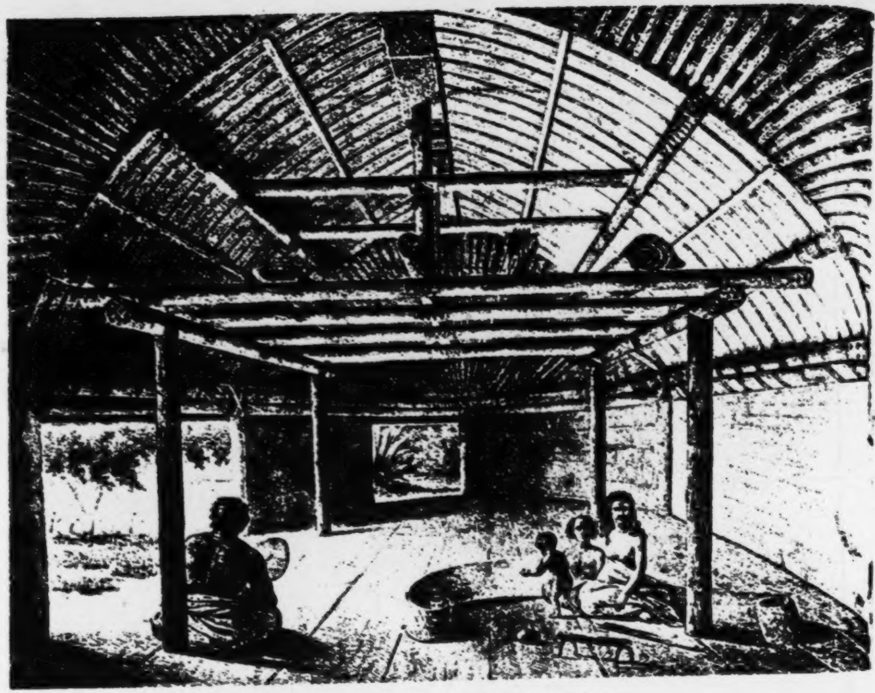
342 nearby **Samoa**, was an oval structure with roof
thatching made from sugar cane leaves or coconut
283 fronds, and with exquisite sennit lashing on the
284 inside rafters. Tongan clubs were characterized by
411 skillfully-incised, geometric surface patterns, at
531 times by inlaid pieces of pearl shell or whale's tooth,
237 and occasionally by designs depicting animals
(zoomorphs) or humans (anthropomorphs); these
decorations were sometimes applied over a period of
time, certain bits of ornamentation being added in
commemoration of a particular battle victory.[A][2]
532 Carved statues, which were used to a minor degree
as representations of deities, were usually wooden
and female, with a rounded, stout body and an
oversized head. The few, excellent ivory statue
carvings from Ha'apai preserved today in museums
are considered to be among the finest creative art
pieces in the history of the Pacific.[B][3]

[p. 10-A]

A [See category 411, pp. 9A, 10B and 11--Analyst]

B [See category 532, p. 8--Analyst]

39: Gerstle & Raitt C,Q-4,5 (1952-1972) 1974 OU9 Tonga OU9



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A traditional oval-shaped Tongan house, featuring a neatly constructed interior and artistically lashed beams, is depicted in this engraving (1826) of a house in Mu'a belonging to the wives of the chief Palu.

Kuo lahi foki eni e langa fale papalangi, ka 'i he taimi ko e na'e ngaue'aki pe e ngaahi fale hange ko ia 'oku ha 'i he ta fakatata ko eni na'e fai 'i he 1826. Ko e fale eni na'e nofo ai e kau fefine 'a e 'eiki mei Mu'a ko Palu.

39: Gerstle & Raitt C,Q-4,5 (1952-1972) 1974 OU9 Tonga OU9

The truly Tongan-style house has a thatched roof and sides made from plaited coconut fronds, as well as a separate facility in the back for cooking purposes. This 1952 photo of a Tongan house and kitchen is still representative of households in many villages and islands, although the use of concrete and iron as building materials is gradually increasing today. 342 343 [178]

Ko e fale Tonga mo'oni 'oku holisi mo 'ato lou niu, pea pehe pe foki mo e peito, hange ko ia 'i he ta ko eni na'e fai 'i he 1952. 'Oku kei lahi pe foki 'a hono ngaue'aki e fa'ahinga fale pehe ni 'i he ngaahi feitu'u kehekehe 'i Tonga.

532 evidence of idolatry and heathenism. Whereas wood
177 carving had been done previously with adzes or tools
made of shell or tooth, local artisans became
attracted to the more highly perfected metal
instruments of the foreigners. Strongly influenced
by materialism and other characteristics of western
civilization, the Tongans abandoned the majority of
their former artistic activities, and consequently, the
[462] entire realm of Tongan art has suffered. For the
[287] most part, only the arts of women (e.g. tapa making,
[285] basket and mat weaving) have survived up to the
present day in Tonga.[7]

341 Tongan architecture has obviously been
influenced by contact with the west; rafter lashing
342 with hand-braided sennit is rarely to be seen any
177 more, and it is not uncommon to find Tongan
283 houses today with corrugated iron roofs.
284 Hand-carved war clubs and other weapons, as well as
411 the skillfully-designed double canoes, have been
501 [p.16-A]
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39: Gerstle & Raitt C,Q-4.5 (1952-1972) 1974 OU9 Tonga OU9

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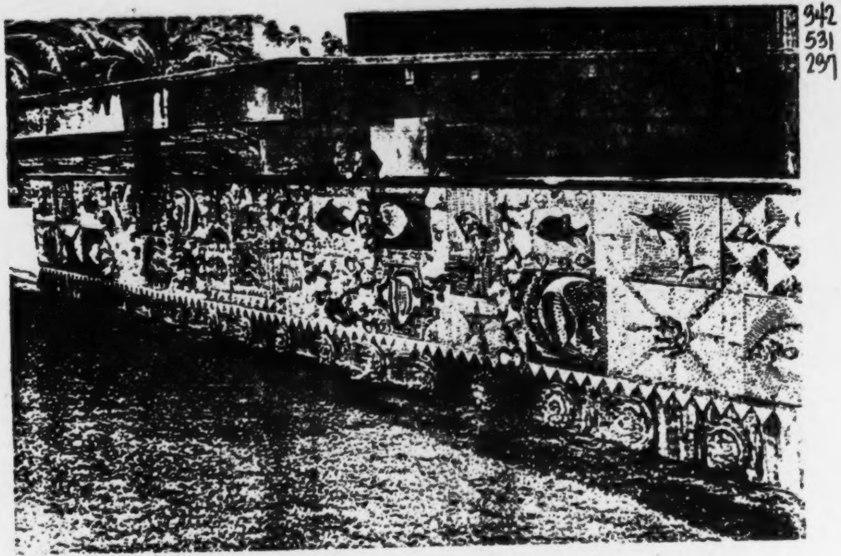

Shells, inlaid in elaborate designs, were sent from all over the Tonga Islands to adorn the exterior wall of *Tufumahina* (above), the home of Princess Pilolevu near Pea, several miles outside of Nuku'alofa. This artistic, unique use of shells is more clearly revealed in the close-up (opposite page, top).

Ko e ngaahi teu nge'esi fingota faka'ofo'ofa mo'oni na'e 'omi mei he feitu'u kehekehe 'o Tonga ke teuteu'i 'aki e 'api 'o e ta'ahine ko Pilinisesi Pilolevu 'i Tufumahina (ta 'i 'olunga). 'Oku 'ilonga lelei 'i he ta 'i he tafa'aki 'e taha 'a e faka'ofo'ofa mo masani mo'oni 'a e ngaahi koloa ni.

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[Caption for this photo is on page 18]

474 499 285 287 "Lange Fonua" is the women's handicraft co-operative which has grown over the past decade, with the support of Queen Salote and Queen Mata'aho, into a prominent association. It helps people in villages and islands off the route of cruise ships to organize and send their crafts to the *Lange Fonua* shops in Nuku'alofa (shown here) and Neiafu, Vava'u to be sold to tourists.

'Oku lele lelei 'aupito 'a Langa Fonua he ngaahi 'aho ni. Kuo 'osi mahalo eni ha ta'u e hongofulu hili 'a hono 'uluaki kamata 'o e kautaha fakamea'a fetokoni'aki ni, pea 'asili foki 'a hono fai malohi e ngaue ni koe'uhi ko hono poupou'i 'e Kuini Salote, pea mo Kuini Mata'aho foki. 'Oku 'i ai foki e falekoloa 'e taha 'o e Langa Fonua 'i Nuku'alofa ('a ia 'oku 'asi 'i he ta) pea taha 'i Neiafu.

[p. 19]

men of enterprise who use a *pa* trap for catching fish sometimes sell their 621
catch to the villagers or to the people of Mu'a, the ancient capital of the 226
Kingdom lying 3 miles south of Nukuleka. 432

Eiki Tevita Leka

The high chief of Nukuleka is Tevita Leka, a *matapule* of the present 622
Queen. His family have been sailors of the Tui Tonga for generations. 173
There is a story about his ancestor. Long ago, a daughter of the Tui [643]
Tonga became pregnant, but did not disclose her lover's name. Getting [644]
angry, the Tui Tonga was going to kill her, when Haavea Leka, a
matapule of Ha'afeva island in Haapai, came in and asked permission to
take her with him to his own island. On departing, Haave asked the Tui
Tonga as a special favour to name the baby Leka and make him *toutai*,
a sailor, of the Tui Tonga, if the baby should be a boy. The Tui Tonga
later called the boy Leka back to Hu'a and made him a chief sailor of
the *kalia*, a double canoe, named Lomupeau.

The genealogical distance between this first Leka and the present
one is not clear, although Tevita Leka can identify six generations before
him. Many years ago, the Tui Tonga ordered Leka to reside in this [643]
village which was formerly called Nuku. The messenger from the Tui
Tonga to Leka often lost his way, for there were a number of places
named Nuku in Tonga. The name Nukuleka was then given to avoid the [103]
confusion.

Today Leka lives in the same way as an ordinary villager, working 622
his own *api tukuhau* of 8¼ acres, and sleeping in a house thatched with [511]
plaited coconut leaves. But he is of the highest rank among the villagers [241]
and none is able to take a seat above him. Even in a church a chair is [342]
reserved for him beside the pulpit. As *matapule* of the Queen, he [554]
announces the order of the Queen to the villagers. He may ask the [796]
villagers to offer pigs, yams and *pola* (plaited coconut leaves used as a 622
food tray) piled with food cooked in the earth oven, on special occasions 644
like the birthday of the Queen or the two princes or on the feast to an [565]
honoured guest. Sometimes he visits the palace in the capital to serve [651]
the guest of the Queen. When the Queen visits other islands of the
Kingdom, he may follow her as his ancestor did. But his most important 796
duty as a *matapule* is to attend the *fai kava* given by the Queen which is 574
usually held on her birthday in the palace or in the open space in front 644
of the palace. The order of drinking *kava* is as follows; the Queen, 622
Lauaki, Motua paka, Noble Nuku, Noble Luani and Tevita Leka.(7) 565

In the village life Leka has a special role in catching the *ika faka* 622
fonua, literally 'the fish of the village". The *ika faka fonua* of Nukuleka 226
is the *matai*, a hammer-headed shark, that comes near the coast from
October to March. If the *matai* does not appear in this season, Leka [782]
goes to the graveyard to offer *kava* roots and to pray to his ancestor. This
prayer will be heard without fail. Anyone who sees a *matai* out to sea
calls "*Matai, Matai!*" when all the villagers gather on the beach, and men
both young and old sail out with sticks and paddles in their hands. As
soon as Leka hears the call of *matai* he hurries to his home. While they

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7. This seat-ordering which Leka indicated is not different from the *kava* ring cited by Collocott. Collocott 1927: 28.

are inshore, if he should step out of his house, the *matai* will get away. 622
Formerly, the head of the *matai* was always offered to Leka. 226

Other *matapule* and *ofisa kolo*

Besides Leka, there are two *matapule,* Mautea and Ikaholi, in this 565
village. Mautea was appointed to the position of a *matapule* of the 621
Queen by one of his relations, Lauaki, in 1950, who was the chief 644
matapule of the Queen. Mautea thinks that his duty as a *matapule* is to 624
participate in royal funerals. He also attends the kava ceremony held
by the Queen, but is not aware of the order of drinking kava. Ikaholi, 565
succeeding to his grandfather, has become a *matapule* of a noble at 624
Mu'a. He is quite young and has no knowledge about the duty of a
matapule.

Ofisa kolo, town officer, was a man of fifty eight years old at the 624
times of this study. He held this position from 1930 to 1943 and from 644
1958 on. The premier appoints the officer and the Government pays him [465]
a small amount of money. As a representative of the villagers as well as [655]
an agent of the Government, he reports every day within the village, takes
charge of the wooden cases for bananas which are brought in by the
Tongan Produce Board, and announces the Government's intentions at
the *fono,* village council. According to him, the qualification of town [554]
officer is to belong to a good family, to have never done wrong, to have
his own *api tukuhau* and so on. Since the term of town officer is unlimited, one remains in office usually until death or retirement. The *ofisa kolo* of this village has several times requested the Premier to replace him
for reasons of health, but he still retains his office. There seems to be 621
little difference between thse men and ordinary villagers in economic life or 554
status. The size of the *api tukuhau* held by them is about the same as 511
others and the crop produced on it is mostly consumed by their families.

II FAMILY

Household Composition

There are 35 households in this village. We may exclude two house- 592
holds of the stewards of the Free Wesleyan Church and the Free Church [621]
of Tonga from the village households in what follows. The household is
a unit of everyday living. Its members usually share a common *fale mohe* [342]
(sleeping room), *fale kuki* (kitchen), *fale kaukau* (bath room), and *fale*
malolo (rest room). Some of the households do not have *fale kaukau*
or *fale malolo.* The location of households is sketched in Fig. 1.(8) The [128]
size of the household varies, with an average of 6.15 persons.

TABLE 1. THE HOUSEHOLD SIZE AND GENERATIONAL COMPOSITION 592 621

No. of Persons	2	3	4	5	6	7	8	9	10	13	Total
1 Generation	1	1									2
2 Generations	1	5	3	1	2	3	4	3	1		23
3 Generations					3	2	1		1	1	8

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(8) The household number (1-34) is given to each according to the ecological arrangement of the households. It is interchangeably used for indicating its household head. European style houses, made of wood, are rectangular. Traditional Tongan style houses are [342] thatched with coconut leaves. Semi-traditional Tongan style houses have wooden walls and tin roofs. Fijian style houses, made of coconut leaves, are rectangular.

MACHIKO AOYAGI

1 The fourth son of 5 (twenty five years old in 1962):

He worked the *api tukuhau* of his wife's mother who received it from her second husband, and he resides in part of this *api tukuhau* with his wife and daughters. 592 591

17 The first son of 9 (twenty four years old in 1962):

He has neither *api tukuhau* nor *api kolo.* Before 1960 when he married, he had been working on his father's *api tukuhau,* and is now working on the *api tukuhau* of the Catholic Church. He had stayed with his parents until 1960 when the *api kolo* of his father's sister became vacant and he shifted his residence there, building his house by himself with coconut trunks and leaves given by his father.

19 The first son of 21 (twenty five years old in 1962):

Having no *api tukuhau,* he works on the land of his close friend. He received *api kolo* in 1961 from 32 who is his father's mother's brother, and built his house with materials from his father's land. His first son was born in 1960.

23 The third son of 28 (twenty six years old in 1962):

Having neither *api tukuhau* nor *api kolo,* he tills a portion of his father's land and expects that his elder brother who lives in another village will give him his *api tukuhau* located in Nukuleka. He had stayed in his father's household for a while after his marriage. Then, he and his wife moved to the house built by his elder brother in his *api kolo.*

Except for 14 and 19, the above householders have neither *api tukuhau* nor *api kolo.* To have one's own *api tukuhau* is not an indispensable condition to form an independent household, because in the Tongan way of life one can freely ask to borrow the land for cultivating from relations and friends. One can borrow even more freely *api kolo* for the purpose of building the house. Building a house is not expensive. It is easy to get from one's father, coconut trunks and leaves for pillars, roof and walls, and to build it oneself. Generally speaking, a man sets up his independent household a few years after his marriage. Based on the peculiar land system of the Kingdom and owing to the mutual aid among the relatives, the fission of a household takes place quite easily. 592 423 [342] [591]

Supporting Old Parents

In the last phase of a family cycle an old couple or one of them will remain. However, in this village none of these old men and women keep their own households. One of their married children stays with them. There seems no rule about the person who stays at home in order to take care of the old parents. 592 888 [591]

7

KINSHIP AND BEHAVIOUR IN A TONGAN VILLAGE

578 While I was staying in the village, a quarrel occurred between a man
605 and his classificatory sister who were the second cousins. The reason for
602 their quarrel is as follows: Two girls (H and V) in the village had the
601 same boy friend. The woman (A) took the side of V, although her
brother's (B) wife (C) took the side of H, and there was a dispute between them. Then A's adopted son (D) of six years old hit B's son of
[683] two years old. Getting angry, B hit D back. So A went to law with B,
and B sued D for his violence. Since then, A, B and C, who are next
door neighbours, have remained unfriendly.

601
602 There is much more emphasis on correct behaviour in the case of a
605 real and direct relationship than a classificatory one. For example, the
593 brother-sister *tapu* is most strictly observed, but between cousins (classi-
[784] ficatory brother and sister) it is sometimes relaxed. Sometimes cousins
joke and laugh in loud voices in a way that is never found in the real
604 sibling relationship. And one dares not employ his *ilamutu* privilege
602 towards the classificatory *fa'e tangata* so freely as towards his real
601 mother's brother.

128 Next we shall examine a few practices in connection with kinship behaviour.

The Place to Sleep

593 It is said that the brother and the sister do not live usually in the
592 same house after ten or twelve years of age. In this village there are only
[342] two wooden houses having more than two rooms and the remainder are
the houses, each with only one room. A boy who reaches about the age
513 of ten is supposed either to build a hut or find some other place to sleep.
592 Out of 33 households ten have boys and girls who are older than ten
593 years. These ten households are grouped into four according to the
place where the boys sleep.

(a) in the main *fale mohe* with sisters	3 households
(b) in another *fale. mohe*	5 households
(c) in *fale kai*	1 household
(d) some brothers in another *fale mohe* but others with sisters	1 household

One of (a) households has a large wooden house, permitting the boy to sleep in a separate room from his sister, so that this case may be added to (b).

Out of 19 boys 14 sleep apart from their sisters. Sometimes a little boy of six years old sleeps with his elder brothers, thus separated from his sister and parents. Among five boys who share the room with the sisters, three are eleven years old or over. The oldest boy, the second son of 9, is already married and lives with his father and sister of twelve years of age in his fatherm's house. A fourteen years old boy is the eighth son of 5; his elder brothers are all married. He stays with his parents and his sister of thirteen years of age in the same house. An eleven year old boy is the first son of 3 who sleeps with his parents and elder sister of twelve years old. So the age of girls sleeping in the same room with a brother may be as old as thirteen but no girl over thirteen years of age lives with 592 either an older or younger brother. It is probable that boys are told to 593 sleep in a separate place when the sisters reach the age of puberty. [513]

The commonest way to separate boys from girls is to build another hut [342] for the boys in the same *api kolo,* or to make the *fale kai* (dining hut) [343] available to the boys. Occasionally the father moves and accompanies the sons (two cases) or the daughters (one case). The case of a complete separation is given by 9 who has accompanied four sons to eldest and married son's household in order to part them from their younger sister. These boys also take a meal and work with the brother's family. They seem to be allowed to live with their brother's wife in one room because she is not their sister-in-law but their *mali.*

The Name Giver(20)

The following table shows the name givers for 96 persons of 17 households in the village. 553 602

Name giver	First child	Second	Third and subsequent	Total
fa.	3	1	15	19
fa's fa.	1			1
fa's mo.	2		2	4
fa's bro.	1	1	5	7
fa's sis.	4	6	11	21
fa's fa's mo.	1	1	1	3
fa's mo's mo.			1	1
fa's fa's bro's gr. child			1	1
fa's fa's sis.	1			1
fa's fa's sis's da.	1			1
fa's mo's bro's da.	1			1
fa's mo's sis.			1	1
fa's mo's sis's so.		1	1	2
fa's sis's child			1	1
fa's sis's son's wife			1	1
fa's bro's wife			1	1
fa's relative		1	3	4
mo.		1	5	6
mo's mo.			3	3
mo's bro.			2	2
mo's bro's wife			1	1
mo's sis.			2	2
mo's mo's sis.			1	1
mo's mo's mo's bro.			1	1
mo's relative		1		1
not related	2		2	4
unknown			5	5
Total	17	13	66	96

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20. A person's name may change sometimes two or three times in his life. But the name given on his birth is only one for each person.

sponsorship, wherever I lived, since land is not freely 114
available in Tonga. There seemed little point in avoiding 121
being associated with someone merely because he was a 122
government official, particularly since I would be associ-
ated with the government, anyway, through my research in
education. I therefore accepted his gracious offer, but
declined the further invitation extended both by him and
his wife that I live as a member of their household.
Instead, we agreed that I would live in a fale (a 9 x 16 [342]
foot coconut-thatched 'house') that I would have built
for me on land at the back of their house. I would do my
own cooking in my fale, but had free access to their house
and use of the indoor plumbing facilities there. While
the fale was being built and outfitted, a matter of a few
weeks, I lived in a boarding house in Nuku'alofa and
commuted daily to Motulahi. I moved in to my fale in 114
mid-September and that was my base for the next eight
months, until I left Tonga. In all, I was in Tonga for [101]
ten months, from mid-July 1969 through mid-May 1970.
During this period I made two trips of a few days each in
Tongan waters and spent two weeks in Fiji. Except for [101]
these three side-trips, my research was conducted on
Tongatapu.

After I came to live in Motulahi my field methods 123
were based on participating as much as I was able in the

361 residential use, but it cannot be allocated for residential
423 purposes because it has not yet been surveyed and divided
into town allotments. A brother of one of the present
title-holders has repeatedly bragged that he would cut up
the man who cuts up his land, and the noble has avoided
the risk of precipitating a crisis by not calling in the
Department of Lands to make its survey. There is beginning
to be a shortage of residential land in Motulahi, however,
and already a number of town allotments are occupied by
more than one household.

351 Town allotments present a decidedly non-uniform
appearance. Besides whatever vegetation there may be on
the *'api*, each household has a number of different-looking
[342] structures. First, there is the main house, comprising
343 living and sleeping quarters. Then there is the *beito*, an
351 open-sided lean-to adjacent to the house or a few feet
[514] away, which serves as a kitchen or cook-house. Somewhat
[515] further away from the main house there is a small enclosure
over a pit-latrine (*fale mālōlō*) and another enclosure,
[513] usually open-roofed, used for bathing (*fale kaukau*). In
some cases, there are other structures as well, providing
additional sleeping space. And there may also be an
enclosure in which small animals such as chickens and pigs
351 are penned. Besides these structures, each *'api* usually
[296] has a line or two of colorful laundry, and during the day
there may be mats and bedding spread out to air. The look

● 342 Main houses are of various styles, with three basic
types that range from traditional to modern according to
the material used in construction. First, there is the
oval or rectangular single-roomed house that is walled and
thatched with mats of plaited coconut-leaf, ranging in size
from about 10 x 15 feet to more than five times that large.
Next, there are houses made of wood, raised up to three
feet off the ground on wooden or concrete stilts, and none
smaller than about 20 x 20 feet. And finally there are
houses made of concrete blocks, the largest and most modern
of all. All concrete houses and most wooden houses are
roofed with sheets of corrugated iron. Many have a roof
gutter leading to a large drum in which rainwater is stored.
312 Only three houses in Motulahi have an indoor toilet and
514 bathroom with running water. Two of these belong to two
555
177 of the richest men in the village; the third is the
648 otherwise traditional-style house of the U.S. Peace-Corps
worker who teaches at one of the local schools. Besides
these houses, there are a few that have water from an
outside tap on the 'api. People who do not have piped
water make use of their neighbors' taps or the few public
taps in the village. There are also shallow wells on a
number of 'api. (Well water is used for laundry and other
cleaning purposes but is recognized as being not safe to
373 drink.) A number of houses have electricity, used mainly
for lighting, but most people make do with a kerosene
lantern or a Coleman lamp.

592 1966, but in 1969 they went to live with Lupe's family
596 in another village on Tongatapu. 'Aisea quarrelled with
591 Lupe's brothers, however, and the couple moved back to
Motulahi to live with Viliami and 'Ana, bringing with
them their two children and Lupe's sister's son (whom
they had adopted in the informal fostering relationship
known as pusi'aki). In February 1970 they had been back
in Motulahi for about one month and it was indefinite
how long they would be staying in the household.

The third married couple in the household, Mele
and her husband Solo, had been living for a few years in
their own single-family-group household in Motulahi,
sharing the town allotment of her married brother Tomasi
[132] (the one who had his own household). However, about a
[342] week before I surveyed Viliami's household, a heavy
rainstorm flooded Mele and Solo out of their coconut-thatched house (as it did a number of other households in the village). The couple and their four children (including one pusi'aki adopted by Mele before she was married) moved in to her parents' household until a new house was built for them four weeks later.

Matiu, another of Viliami and 'Ana's children, had also been flooded out of his house. His wife had gone to visit her parents on another island a few weeks previously, taking with her their two-year-old daughter. Matiu

592 ment stipend), a household composed of two Mormons
463 serving their period as "missionaries" away from their
home village (supported by members of the local congregation), a lawyer, and a builder.

463 In many cases, the income-producing activities
described above were not full-time occupations; a person
might be engaged in more than one occupation or be engaged
in different occupations at different times of the year.
These elements make it difficult to classify the village
463 population in terms of occupation. This difficulty is
434 compounded by the fact that non-agricultural activities
592 were seldom the major source of household income. In most
of the households in Motulahi, subsistence production and
copra production were the mainstay of the household, while
other income-producing activities served mainly to provide
592 a more or less regular flow of cash. On the other hand,
511 households without some source of supplementary cash
434
[342] income had a noticeably lower standard of living. Among
them, for example, there was a greater proportion of the
old-style coconut-thatch houses and shabby old wooden
houses (probably because households without supplementary
sources of income found it difficult to save the relatively large amount of cash needed to build a new wooden or
brick house).

592
423 The major part of the everyday cash requirements and

village had no one engaged in any income-producing activity besides 592
the basic Tongan pattern of peasant production. In the remaining 434
households, there were a total of 54 government employees, both men 464
and women, almost all of whom worked in the main town. In addition,
there were persons employed outside government (mainly as laborers in
various enterprises), or by one of the churches (usually as teachers in a
church-run school). Besides people with jobs, there were people in the 592
village who had business enterprises of their own. Included in this were 434
six stores in the village, two women kept large flocks of chickens and 472
sold the eggs to the big stores in the main town, there were three [444]
privately owned sheds that were hired for movies and dances or used as [235]
copra-weighing stations, two men owned trucks for hire, one man [427]
operated a band, a woman had a dress-making shop in town, and so on.
Other income-producing activities of people in the village included the [439]
cultivation of watermelons (mainly for export to New Zealand) and the [244]
manufacture of handicrafts. [463]

In many cases, the income-producing activities described here were 592
not full-time occupations, nor were they the major source of income for 434
the household. In most of the households in the village, subsistence
production and copra production are the mainstay of the household,
while other income-producing activities serve mainly to provide a more
or less steady flow of cash. On the other hand, households with no 592
source of supplementary income enjoy a noticeably lower standard of 434
living. Among these, for example, there is a greater proportion of the 511
old-style, coconut-thatch houses or old and shabby wooden houses—peo- 342
ple without supplemental sources of cash income find it more difficult to
obtain the large amount of cash needed to build a new wooden or brick
house.

The major part of the everyday cash requirements and other 592
material needs of a household are provided for if the household has 423
access to an agricultural allotment (*'api 'uta*). Although this is not the [434]
place to describe the Tongan system of land tenure in any detail,[11] the
following notes will suffice to indicate the major elements involved in a
household's having access to an allotment. In theory, every male over
the age of 15 is entitled to an agricultural allotment of 8¼ acres
registered in his name. In practice, however, about 60% of all who are
eligible do *not* have land in their names (largely because of shortages
stemming from the pressure of increasing population). Some men, on
the other hand, have effective control over more than one allotment,

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[11] For articles dealing with the system of land tenure, see Maude (1972) and Nayacakalou (1959). In addition, refer to Rogers (1969) for a discussion of the *Report on the Results of the 1966 Census* (Fiefia 1968) that focuses on the findings relating to population increase and its effects on land holding.

[1777]

648 his curiosity in looking at the Cattle &c^{a} on deck, I asked him down
643 into the Cabbin, some of his attendants objected to this, saying if he
644 went there people would walk over his head and this was never done.[1]
I desired Omai to till them I would remove that objection by giving
orders that no one should walk on that part of the deck which was
over the Cabbin, but this probably would not have done if the cheif
had not waved the ceremony and walked down with me without any
648 more to do. Both he and his attendants took some pains to convince
643 us he was King and not Feenough, for he soon perceived we had
634 some doubts about it, and particularly Omai who was a good deal
chagrined at finding there was a greater man than his friend
648 Feenough, or Omai as he was now called for they had from the first
643 chang'd names.[2] The Chief sat down with us to dinner, he eat but
little and drank less. After dinner he asked Omai and me to
accompany him ashore, Omai excused himself but I attended upon him in
my own boat, having first presented him with such things as I knew
would secure his friendship and what he most Valued and but little
[431] expected. As soon as we landed and before he went out of the boat
he ordered two hogs to be brought and put into her; he was then
[482] carried a shore by some of his own people on a board like unto a
[493] hand barrow, and went and seated himself in a small neat house near
[342] the shore, which seemed to have been built for to accomodate
[644] traveling Chiefs. He desired me to sit by him, his attendance, which were
not numerous, seated themselves in a semicircle before us without the
house; an old woman sat behind or rather on one side the Cheif with
a fan in her hand to fan away the flies that came near him. The
several articles his people had got by truck aboard the Ships were
now displayed before him, he looked over them all and enquired
what they had given in exchange and seemed pleased with the
bargins they had made. At length he ordered every thing to be returned
except a glass bowl which he kept to himself. The persons who
brought these things to him first squated themselves down before him,
then laid down the things and rose up and retired, the same order

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[648] capable of receiving & comprehending subjects which we had considered above their faculties in their present state. . . .'—King, 28 May.

[643] [1] Because of the quite supreme sacredness of the king's head, above all other heads. Any chief's head or father's head was of course *tapu*.

[2] 'Omai all this time was out of all temper with Poulohow, & want'd to perswade us, that he told lies in saying he was a greater man than his friend, it shoud be observ'd that these two had exchang'd names, it was therefore impossible Omai cou'd consent to be so degraded, & he examin'd the fat King very closely, he own'd that a woman a relation of his, call'd Chunēē Takulla living at Va-vaōō was the head of all the Islands & to whom he bow'd; there was such an air of Openess & of good sence (as far as we could understand) that we all readily acquiest in his pretensions, in spight of Omai's endeavours to the contrary, who would not accompany the King & the Capt^{n} on shore.'—King, 28 May.

of Captain Furneaux.[1] They brought each of them a hog and some 648
yams as a testimony of their friendship and I was not wanting on my 643
part in making them a sutable return.

At length about 2 PM we arrived at our intended Station, being a [431]
very snug place formed by the shore of Tongatabu on the SE and two 122
small islands on the East and NE: here we anchored in 10 fathom
Water over a bottom of owsey sand, distant from the shore one third
of a mile.[2] Soon after we had Anchored, I landed accompaned by 648
Omai and some of the Officers, we found the King waiting for us on
the beach, ready to conduct us to a small neat house, situated a little [643]
within the skirts of the woods with a fine large area before it; this [342]
house the Cheif told me was at my service during my stay and a
better situation we could not wish for. We had not been long in the
house before a pretty large circle of people were assembled before us
and seated on the Area. A root of the Cava plant was brought and [276]
laid down before the King, he ordered it to be split into pieces and
given to several people, men and women, to chew and a bowl of [574]
liquer was presently prepared. In the mean time a baked hog and
two baskets of baked yams were brought and afterwards divided into [264]
ten portions, each of these portions were given to certain people
present but how many each was intend[ed] for I could not tell, one
was sent to the Kings brother and one remained which I judged was
for himself as it was a choise bit. The liquor was next served out, but 648
the King seemed to give no directions about it;[3] the first cup was 643
brought to him, he ordered it to be give[n] to one who sat near him,
the second was brought him which he kept, the third was brought 276
me, I gave it to Omai for their manner of brewing had quenched my 574
thirst;[4] the rest was served out to different people by direction of the

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[1] We have no prior record of this friendship: the Tupou's are becoming rather confusing. Tupoulahi was the name of the last Tu'i Kanokupolu, and as Gifford writes (*Tongan Society*, p. 88), 'The frequent use of the name Tupou for the Tui Kanokupolu's relatives makes identification as difficult as with the Tui Tonga's relatives with whom the name Fatafehi was equally common'.

[2] The anchorage was in the harbour of Nuku'alofa, the present capital town of Tonga. Cook's description points to a spot in its eastern bight, almost two miles east of the existing pier. The 'shore of Tongatabu on the SE' was the arm of land, the northern side of the lagoon, which ends in the point called Holeva ('Observatory Point' on the engraved chart)—no doubt the 'uncultivated point' mentioned as 'our station', pp. 134–5 below—and the detached island Nukunuku. The small island to the east was 'Oneata, though it is not the only islet in that direction; that to the north-east was Pangaimotu ('Pangymaudoo' in Cook's paragraph below). This position is still recommended as the best for shelter and holding ground in the summer months, which is also the hurricane season; so the Tongans who directed Cook knew what they were doing, even though the month was June.

[3] Because he did not need to—except as Cook goes on to note his first direction as to a recipient—the ceremony being so much one of settled ritual. How strict the ritual was, at a formal kava-ceremony, and all its details, may be found from a study of the long description in Mariner, II, pp. 150–67.

[4] But, as Mariner points out, the Tongans were an exceedingly clean race, and only [123]

[1777]

291 the dress of both men and Women is the same, and consists of one piece about two yards wide and two and a half long, or so long as to go once and a half round the waist, to which it is confind by a girdle or cord; it is double before and hangs down like a petticoat as low as the middle of the leg. The upper part of the garment above the girdle is plaited into several large folds, so that there is cloth sufficient when [565] unfolded to come over the head but this is very seldom done. This as to form is the general dress, but large pieces of Cloth and fine Matting are only wore by the superior people, the inferior sort put up with small pieces and very often wear nothing but a petticoat made of the leaves of plants, or the Maro,[1] which is a narrow piece of cloth or matting like a Sash, this they bring between the legs and wrap 292 [535] round the waist; but this last is chiefly confined to the men. In their great *Haivas*, or Dances they dress in various dresses which are made for the purpose but the method is allways the same; the richest dresses are those covered more or less with red feathers. When, or on what occation the Chiefs wear those large red feather bonnets I could never learn,[2] both men and women sometimes shade their faces from the Sun with little bonnits, made either of matting or other 301 materials. They also wear Neclaces some of which are composed of many little neat trinkets made of bone, mother of pearl and tortise shell.[3]

342 [352] [264] *Houses* The Houses of these people are of various sizes and like those of Otahiete consists chiefly of a thatched roof supported by pillars and rafters desposed in a very judicious manner and the workman ship in many extremely neat, the floor is raised with earth smoothed and covered with strong thick Matting and kept very clean; they seldom eat in them, unless it rains. The most of them are inclosed on the weather Side and some more than two thirds round, with strong Mats or the branches of the Cocoanut tree plated or woven one into a nother; these they fix up edgeways and reach from the eaves to the 352 519 ground and answers the purpose of a wall. A thick strong Mat about 2½ or 3 feet broad, bent into the form of a simicircle and set up upon its edge with the ends against the wall, like unto the the fender of a fire hearth, incloses a place for the Master and Mistress of the family to sleep in, the lady indeed spends most of her time in it,[4] the rest of

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[1] Tongan *malo*.

[714] [2] This head-dress, the *fas* or *fasfas*, was worn during times of festival or high ceremony, or at the outset of a war expedition.

[3] '. . . both Sexes wear Necklaces made of Shells, bones, & berries, & sweet smelling flowers, & have two holes (generally in one ear only,) thro which they thrust a round piece of Tortoise Shell about 3 Inches long or reed or bone. The Women have rings on their fingers make of Tortoise Shell.'—King.

[562] [609] [4] Cf. King: 'The roads about this place [the neighbourhood of the Observatory] are

576 could sit down. The hands after performing this ceremony, are in
643 some cases, rendered useless for a time, for untill they are washed
they must not handle any kind of victuals; this in a Country like
644 this, where water is not always at hand would seem to be attended
565 with some ilconv[en]iency, but they are never without a succedanium, for a piece of any juicy plants of which there are always enough
784 at hand, answers the purpose of water. When the hands are in this
[783] state they call it *Taboo rema*,[1] Taboo in general signifies forbiden and
rema is hand.

[515] When it is occasioned by paying obeisance to a great personage it
is soon washed of; but in some other cases, it is of some continuance;
we have frequently met with women that have been Taboo rema and
783 have been fed by others, but never with a man. When the time is expired, she goes and washes in one of their baths which are dirty holes
643 for the most part of brackesh water, she then comes to the King,
make[s] her obeisance in the usual way, then takes his foot and applies it to her breast, shoulders and most other parts of her body, he
then embraces her first on the one shoulder and then on the other,
after which she retires purified from her uncleanness. I do not know
that it is always necessary to come to the King, Omai said it was, if
so this may be one reason why he is for the most part traveling from
[634] island to island. I saw it done with him two or three times, and with
Feenough once, but this was with one of his own Women and as
Omai was not with me I could not ask the occasion.

784 *Taboo* as I have before observed is a word of an extensive signification; Human Sacrifices are called *Tangata Taboo*, and when any thing
[782] is forbid to be eaten, or made use of they say such a thing is Taboo;
[643] they tell us that if the King should happen to go into a house belonging to a subject, that house would be Taboo and never more be in-
[342] habited by the owner;[2] so that where ever he travels there are houses
for his reception; indeed none of them at no time make free with each
[644] others habitations. Old Toobough was at this time over the Taboo,[3]
that is if Omai understood them right, he and his deputies inspected

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[1] *tapu nima* is the modern form. But Cook must have heard the ambiguous Polynesian *r* sound in the word for 'hand'. He knew it from Tahiti and New Zealand.

[482] [493] [2] Or he was accompanied by a special portable house, *falefata*, carried around in sections. It will be remembered that the day Cook first met Paulaho, 27 May (p. 116 above), the king was 'carried a shore by some of his own people on a board like unto a hand barrow' [another mark of his eminence], 'and went and seated himself in a small neat house near the shore, which seemed to have been built for to accomodate travelling Chiefs'. The *arii rahi* in Tahiti could put houses out of commission in the same way. Even if the Tu'i Tonga sat on a mat or rested on a piece of tapa, the article could not be again used by the owner but passed to the king.

[3] 'Over the Taboo': meaning that he decided on matters of *tapu*; doing this and other work, Tongan fashion, for his elder brother Maealiuaki, the Tu'i Kanokupolu.

245 in the open plantane fields. The bread fruit and Cocoa nut trees are
[411] interspers'd with little order though chiefly near their habitations,
and the other parts of the island especially towards the sea and about
[244] the sides of the lake are coverd with trees and bushes of a most
luxuriant growth, the last place having a great many mangroves &
the first a vast number of the Fait'anoo trees already mentioned.
133 There seems to be no rock or stones of any kind about the island that
is not coral, except in one place to the right of the sandy beach which
is the highest part of it, where there is a rock twenty or thirty feet
high of a calcareous stone of a yellowish colour and a very close hard
texture, but even about this place are large pieces of the same coral
rock that composes the shore.

648 We liv'd on the most friendly terms with the natives while we
remain'd here and obtain'd a much larger supply of refreshment
609 than could have been expected from so small a place, but it should be
[439] consider'd that all the small islands around it furnish'd their Quota,
[342] and the strangers that brought their hogs and other things were
oblig'd to live in temporary huts which they erected or lay themselves
[136] down behind bushes or ferns. Besides walking frequently in the
country, which we were permitted to do without any interruption,
we sometimes amus'd ourselves in shooting wild ducks not unlike the
Widgeon[1] which are very numerous upon the salt lake and the other
648 pool. In these excursions we found the people had often deserted their
houses to come down to the trading place without entertaining any
609 suspicion that strangers rambling about would take away or destroy
439 any thing about them, but though in these cases it might be suppos'd
161 a great part of the inhabitants were sometimes collected at the beach
162 it was impossible to form any true computation of their numbers, as
the continual resort of strangers from other places mixing with them
might easily mislead one. However as there was never to appearance
above a thousand seen at one time it would perhaps be sufficient to
allow double that number for the whole island.

114 We steerd about NNW towards Káó and Toofòá in our way to
Hapaee,[2] an island which Fee'nou said was of a considerable extent,
634 where we could be supply'd plentifully with every refreshment in the
[648] easiest manner. He engag'd to go to this place with us himself and
seem'd to have some interest in it, for he express'd a good deal of
aversion to the Captains intention of going to Amsterdam which he
133 mention'd to him. Although they made us understand that Hapaee
114 lay rather to the NE of Anna'mooka, we were obligd to take this route
because there is a cluster of islands lying between Annamooka &

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[1] *Anas superciliosa.*

[2] Ha'apai.

A [Nomuka--Analyst]

55: Anderson D,T-5 (1777) 1967 OU9 Tonga OU9

blind with a disorder of his Eyes. It is probable he precedes the other 643
in rank as he certainly posses'd what we might call the seat of honour,
sitting under the tree and fronting us as we walk'd up, while the other [164]
sat aside, and indeed it appeard that he was rather disappointed by
our addressing Mareewagee first & paying most attention to him.

SATURDAY 14th. The wind Southerly. Gentle breezes with fine 132
weather. The people on shore employ'd as before & those on board
mostly in the hold. The natives brought a good deal of fruit and some 114
hogs off & a brisk trade is carried on at the tent. We had a visit from 439
Poulaho who now lives constantly at the house or Ma'laee by the
tent, I believe with an intention to superintend or see that no mischief 643
is done by his people. The Captain made him a present of some things
but neither of the other chiefs came off as they had promis'd yester- 648
day. He entertaind our people at night with a dance at the tent, and [535]
to the surprize of every body the unwieldy Poulaho endeavour'd to
vye with others in that active amusement.

A Canoe went to the Buoy where our boats lay and stole an iron 648
pin belonging to one of them, for which we confin'd one in irons who
was found in the Canoe though not the principal, but the iron being
return'd in the afternoon he was set at liberty.

SUNDAY 15th. The wind SE. Moderate breezes with fine weather. In 132 -
the forenoon some of us walk'd to the westward of the tent and found
the country totally uncultivated for near two miles, though quite 311
coverd with trees and bushes in a natural state growing with the
greatest vigour. Beyond this is a pretty large plain on which are some
Cocoa trees and a few small plantations that appear to have been
lately made, and seemingly on ground that has never been broke in
before, but it seems to preserve the same appearance still farther on.
We found that several of the principal people, as Maree'wagee, [342]
Too'bou, Fee'nou & some others had erected temporary huts to live [643]
in while they remaind here, near the path which leads through the [634]
uncultivated part immediately west of the tent. Near the creek which
runs to the eastward of the tent the land is quite flat and partly 133
overflown by the sea every tide. When that retires the surface is seen [136]
to be compos'd of coral rock with holes of a yellowish mud scatterd
up and down; and towards the edges where it is a little firmer are
innumerable little holes, from which issue as many small crabs of two
or three different sorts which cover the place as flies on a carcase, but
are so nimble that on ones approaching they disappear in an instant
and baffle even the natives to catch any of them.

At this place is an artificial work which shows these people have 349

[1777]

226 furnish'd, and wading up to the middle within the seine directed it
slowly under water where they saw any fish, and rais'd it up pretty
114 quickly, bringing the fish when the[y] caught any in it. We got a few
mullet from them & then row'd to the bottom of the bay where we
landed on going to see Mareewagge, from whence we proceeded to
764 Poulahos house which was but a little way off. Almost close by it we
found a Fya'tocka or burying place much more extensive and
seemingly of more consequence than any we had seen at the other
islands. It consisted of three pretty large houses situated on a rising
ground or rather just by the brink of it, with a small one at some
764 distance, all rangd longitudinally. The middle house of the three first
was by much the largest, and plac'd in a square 24 paces by twenty
349 eight raisd about three feet high, with the surface coverd with shingle
stones and the whole bounded by large flat stones of hard coral rock,
properly hewn, plac'd on their edges, one of which measur'd twelve
764 feet in length, two in breadth and above one in thickness. The others
were placd on little mounts rais'd artificially to the same height and
532 coverd with gravel, one of the huts, contrary to what we had seen
[349] before, being open on one side which we enterd & found coverd with
shingle, with two rude wooden busts of men, one at the entrance the
other farther in, the last of which from its appearance had been there
perhaps several ages. On calling to some of the natives who had
follow'd us to the ground but durst not enter here, to enquire what
they were intended for, they made us as sensible as we could wish that
they were merely memorials of some chiefs who had been buried
764 there.[1] A[t] the foot of the rising ground there is a large area or plat of
grass with different trees about it, amongst which are several of those
137 call'd Etóá very large, which resemble the Cypress & have a fine
effect in such a place. There is also a row of low palms near one of the
houses & behind them is a ditch in which was a vast number of old
baskets.

361 We travers'd the greatest part of the country about the bottom of
the Bay which is call'd Mooa,[2] and found it perfectly cultivated for
[311] above a mile back from the sea, and full of inclosures made by such
fences as were seen at Ha'paee but they were more extensive and had
[565] finer roads in the interspaces. The habitations within these inclosures
are very numerous and belong chiefly to some of the principal people
351 of the island, many of whom reside at this place. Each of them has a
342 proper entrance or door, generally higher than the fence & of a
417 sufficient breadth, which opens in the same manner as one properly
hung upon hinges, behind which is a pretty large spar that rests with

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[1] Cf. Cook, p. 139, n. 1 above.

[2] Mu'a.

the large end against a stone fix'd in the ground for that purpose, and 351
the other being push'd against the door serves as a strong bar, which 342
makes it as necessary to rap here at the door as at a gate in England
before you can enter an inclosure. In a great many of them there is a [417]
smaller inclosure within, this also often with a door, where the house
of the principal person is immediately plac'd, and near it or very
often in the outer one houses of an inferior sort for servants and
dependents. There are sometimes several little places again within [247]
this that have fences and houses, but communicate freely with each
other, and in most there is commonly a pretty spot of short grass,
though of no regular figure, before them with sweet smelling shrubs
call'd Ma'eele[1] and Hooe[2] planted up and down and some other trees
that produce beautifull flowers. The outer inclosure has commonly [245]
such things as they often want planted in them, as Cocoa nut trees
or some plantanes and bread fruit, but no considerable plantations of
Plantanes or Yams.

Beyond this a mile or two we generally found the Plantations more 311
extensive but open, and still farther on a great quantity of uncultivated
land coverd with grass as high as the Knee. Our guides said if
we advanc'd that way we should still find a waste uncultivated
country, or as they call it Váô,[3] but they probably did it only to save
themselves a little fatigue, for some miles beyond this the land seem'd
to rise a little higher and had a great many Cocoa trees, both signs of
its being cultivated. It could also be observ'd that even in this place
the soil was good, and it is probable many of the spots only lay fallow,
for we saw two or three large plantane fields that had lately been
broke in from such ground. It is remarkable that when on the highest 133
part, which is at least a hundred feet above the level of the sea, we
often found the same coral rock which is found at the shore, projecting
above the surface in the paths; and in many places where there
were large breaches with a small quantity of stinking water at the
bottom, it was always in the solid coral shatterd or seperated as it
were by violence.

At one place we fell in with a house where they were manufactur- 287
ing their cloth, which though extensive in itself is a very simple
operation. They take the slender stalks (or trunks) of the papper [248]
mulberry plant, which they cultivate for that purpose and seldom
grows more than six or seven feet in height or four fingers in thick- [237]
ness, from which they strip the bark and scrape off the outer rind with

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[1] Maile, *Alyxia stellata*, a shrub with fragrant long slender stems, abundant small leaves [824]
and dark red berries, much used for wreaths.

[2] Hoi, *Dioscorea bulbifera*, one of the yams, with small flowers in spike-like clusters.

[3] *vao*, land in its natural uncultivated state. Anderson is very accurate.

here, though they are rather intended as conveniencys to their 417
dwellings than a shelter to the plantations. They are made by
passing two reeds together obliquely upwards over two others, and [351]
so on in such a manner that they form a pretty lattice work with
rhomboidal spaces of about two inches to a side, though there are
others made quite close by placing five or six together alternately over
and under each other. The uneven tops are left uncut and the foot
kept clean by digging up the grass with the Hooo, by which care &
frequent repairs they seem to last a long time.

It is not easy to guess why these people who in many things show
much taste and ingenuity should fall short in building their houses, 342
not so much in the execution but design. Those of the lower people
are poor huts scarcely sufficient to defend them from the weather and 342
very small. Those of the better sort are larger and more comfortable 565
but not what one would expect. The dimensions of a middling one is
about thirty feet long, twenty broad and twelve high. It is properly 342
speaking a sort of roof or shade, rounded at the ends, reaching to
within two feet and a half (or three at most) of the ground all round,
under which they creep in. It is supported by strong posts plac'd
commonly at equal distances a little within the edge, with others laid
along upon their tops and some laid across from these, which again
have perpendicular ones rising from their middle to support the top
ridge. These are firmly lash'd together with a cord made of Cocoa
nut fibres, in which they indicate their taste for variety by mixing 342
white and black so as always to represent som[e] regular figure. The 284
frame on which the thatching is supported consists of well made laths [531]
laid in a very regular manner from top to bottom, with others running
across in the same manner without them & fastend with the
Cocoa cord. The thatch is chiefly of Cocoa & other leaves laid over
these laths in such a way, by being doubled under them & intercepted
by the next, that they need little fastening and to a thickness
which makes them proof against the rain or wind. Some of the principal 343
people have houses almost twice as large, and the Ma'laees or
houses of public resort which are pretty numerous are still larger; but [342]
there is a sort commonly smaller than the dwelling houses, almost [344]
round and well clos'd on every side with reeds plac'd close together,
except a small square hole to creep in at. These serve as store houses
to preserve their cloth, matts, yams & other spare things in that their
dwelling places may not be incumbered, and are so contriv'd that
the reeds composing the sides point outwards, so that it seems to
stand upon a narrow base, which with the thatch projecting over a
little way effectually prevents any rain getting in. The houses of the 349

349 Fyatockas have their sides made close in the same manner but are perpendicular, & a few of the best belonging to the principal people are also done in that way with some open spaces at different parts to
342 get in by. The only probable reason I can assign for their negligence in Architecture is their fondness of living much in the open air, in so much that they seem to consider their houses as of little use but to sleep in and retire to in bad weather; and the lower sort of people who spend a great part of their time in attending the others, being almost constantly in their houses, can have no use for them but in the last case.

501 They make amends for the former defect, if it can be truly reckon'd one, by their attention to and great dexterity in Naval Architecture, if I may be allow'd to give it that name. Their Canoes are of two sorts, one of them us'd chiefly to fish in or go to any small distance, the other to Navigate from isle to isle. The first are by far the most numerous[1] and are commonly about five and twenty feet long, near two over at the broadest part, and scarcely so deep. The Bow is exactly like a wedge, from whence it turns gradually broader towards the middle and tapers away till the after part, which droops lower than the fore ends not unlike the tail of a fish. There is a deck runs from forward to near a third of its length aft and another from
346 abaft forward but somewhat shorter. They are built of a tree call'd
[824] Toee,[2] the wood of which is variously colour'd and the pieces or planks are so numerous, I know not whether from necessity or design, that I have counted twenty six in one of a common size on one side. Each plank is fitted with such nicety that they would do credit to an expert Europæan artist, the only joining to be seen on the outside being a line not more open than some in our common Cabinet work; But on the inside there is a small ridge on the edge of each plank, through which & the one next it holes are made by which they are lash'd firmly with cord. The side of the Boat is rounded and every part of the outside neatly polish'd, with little knobs on the two decks
501 where they fasten small white shells as ornaments. They carry from three to five or even six people and are row'd with paddles of about four feet long with an oval, pointed blade which sets them along at a very quick rate. Their narrowness obliges them to use an outrigger or they would be constantly oversetting. This is made by placing a pretty thick spar about three feet from the boats side parallel to it, which is fixt to two others that are laid across the boat from the opposite side,

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[1] This was the *tafa'anga*, 'among the most elegant of Pacific outriggers', says James Hornell, *Canoes of Oceania*, I (Honolulu, 1936), p. 259.

[2] Toi, *Alphitonia zizyphoides*.

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[1777]

512 They bathe themselves about Sunrising either in the small Pools or
[515] in the Sea. In the Morning Parties meet together who form a ring &
533 sing to the beat of Drum & drink Kava after which they eat baked
yams or breadfruit. They dine about noon generally upon baked
276 yams & breadfruit with Puddings made of Plantains, & sometimes
514 the better sort have Pork but more commonly Fish, drinking water
264 with it which they seem to prefer in general to the Cocoa nut milk,
262 not caring so much for that as the meat of the nut. The Chiefs are
271 served at their meals with much Parade, a single yam being often
brought on a pole between two men so that a dinner consisting of a
272 dozen or two of yams, some parcels of baked Fish, Plantains, Cocoa
565 nuts & shells of water & the plantain Leaves for a table Cloth will
264 employ 30 or 40 people. Their method of Cooking differs in nothing
262 material from that of Otaheite which has been amply described in
Captn Cook's first Voyage to that Island. About sunset they play
252 upon their Flutes, sing or sit in discourse with their Women before
171 their Houses; after dark they light Torches in their Houses by which
533 they sit and converse or meet together in large Companies of young
521 men & women & dance upon the green plats before their Doors.
The young women on these occasions make use of many lascivious
535 Gestures & Motions, & so fond are they of this amusement that not a
day passes but many of these dances are performed in all parts of the
[226] Country. While these are employed in following their Pleasures
others line the shores with Torches in their Canoes as a decoy for the
Fish, which they catch in that manner.

Every Chief has his Land inclosed with a hedge of Wicker work
351 about 8 feet high made with Bamboo which has a very neat appear-
417 ance. To this inclosure there is one entrance only, at a door made of
Planks which is kept shut by a long pole resting against it on the
361 inside & it cannot be opened on the outside. Within the generality
of these Inclosures stand about half a dozen Houses among the Cocoa
342 nut & Bread fruit Trees & groves of Plantains; the Houses are small
362 & contain but one family in each, the Shape of them is an oblong
square, the floors are raised about a foot from the Surface of the
ground and always covered with matts, the Eves reach near the
Ground & the sides are made of wicker work tho' some again are
352 quite open. The Married people are seperated at night from the rest
by Skreens made of Strong thick matts which they draw round them,
& these they make use of in the day & move them about occasionally
[415] to defend them from the wind & the Sun. The furniture of their
[411] Houses consists of the Garee[1] or Stools which they use for Pillows,

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[1] *kali.*

[427 cont.]

114 He [428] will [A] admire an elegant flowing robe which involves the whole
291 head and body, in an island where the women very rarely cover
302 the shoulders and breast; and he will be struck with awe and delight
by the figure of a divine old man, with a long white beard, though
all the people of Ea-oowhe shave themselves with muscle-shells.

175 We soon left the landing place, and followed the chief, who
123 invited us up into the country. The ground from the water's side
175 311 rose somewhat steep for a few yards, above which it flattened into
a beautiful green lawn, surrounded by tall trees and tufted
175 shrubberies, and open only to the sea. At the bottom of it, which
● 342 might be about one hundred yards from the landing-place, we saw a
very neat well-looking house, of which the roof sloped down within
[123] two feet of the ground. We advanced across the delightful green,
which was so smooth, that it put us in mind of the finest spots in
England, and were entreated to sit down in the house, which was most
elegantly laid out with mats of the best workmanship. In one corner
of it we saw a moveable partition of wicker-work standing upright,
and, from the signs of the natives collected, that it separated their
[824] bed-place. The roof, sloping down on all sides, was formed of
a great number of spars and round sticks very firmly connected, and
covered with a sort of matting made of banana leaves.

175 [429] We were no sooner seated in the house, surrounded by a
533 considerable number of natives, not less than a hundred, than two
[609]
[123] or three of the women welcomed us with a song, which, though exceedingly
[171] simple, had a very pleasing effect, and was highly musical
when compared to the Taheitian songs. They beat time to it by
snapping the second finger and thumb, and holding the three remaining

[A] [Forster is critiquing an illustration in Cook's published account—Analyst.]

[431 cont.]

175 cultivated, complicated, and elegant than at the Society Islands.
171 [181] But, in return, the opulence, or rather luxury, of the Taheitians
[433] seemed to be much greater. We saw but few hogs and fowls here, and
[23] that great support of life, the bread-tree, appeared to be very
[262] scarce. Yams, therefore, and other roots, together with bananas,
[291] are their principal articles of diet. Their cloathing too, compared
to that of Taheitee, was less plentiful, or at least not converted
[342] into such an article of luxury as at that island. Lastly, their
[351] houses, though neatly constructed, and always [432] placed in a
175 fragrant shrubbery, were less roomy and convenient. We made these
171 reflections as we advanced towards the landing place, where several
511 hundred natives were assembled; and their appearance immediately
struck us with the idea, that if they did not enjoy so great a
profusion of the gifts of nature as the Taheitians, those gifts
175 were perhaps distributed to all with greater equality. We advanced
609 among them, and were accosted with caresses by old and young, by men
201 and women. They hugged us very heartily, and frequently kissed our
hands, laying them on their breast, with the most expressive looks
175 of affection that can be imagined. The general stature of the men
141 was equal to our middle size, from five feet three to five feet ten
175 inches. The proportions of the body were very fine, and the contours
142 of the limbs extremely elegant, though something more muscular than
at Taheitee, which may be owing to a greater and more constant exertion
of strength in their agriculture and oeconomy. Their features were
extremely mild and pleasing, and differed from the Taheitian faces,
in being more oblong than round; the nose sharper, and the lips rather
[302] [237] thinner. Their hair was generally black and strongly curled, and

175 [473 cont.]
535 of coco-nut core, and ornamented with shell-work and red feathers,
124 or such [474] as were curiously wrought of mats in resemblance of
[292] [439] fretwork. From these gestures I have great reason to suppose that
[171] their dances are of a dramatic kind, and public, like those which
175 I have spoken of in the Society Isles, (See pag. 398). Schouten
171 and Le Maire likewise strongly confirm this supposition by their
[535] account of the dances at Horne Island (24). It appeared, upon

24. See Mr. Dalrymple's Collection of Voyages, vol. II. p. 47.

the whole, that the customs and language of these islanders have
a great affinity with those of the Taheitians, and that it would
not therefore be very singular to find a coincidence even in their
amusements. The greatest differences between these two tribes,
who must have originated from the same stock, seem to be owing to
the different nature of their islands. The Society Isles are well
furnished with wood, and the tops of their mountains are still
[311] covered with inexhaustible forests. At the Friendly Isles this
[137] article is much scarcer, the surface (at least of those which we
● [342] have seen) being almost entirely laid out in plantations. The natural
consequence is, that the houses are lofty and of immense extent in
the first group of islands; but much smaller and less convenient in
[501] the last. In one the canoes are numerous, I may almost say innumerable,
and many of a vast size, and, in the other, very few in number, and
175 much smaller. The mountains of the Society Isles continually attract
171 the vapours from the atmosphere, and many rivulets descend [475]
312 from the broken rocks into the plain, where they wind their serpentine
course and glide smoothly to the sea. The inhabitants of those
islands take advantage of this gift of bountiful nature, and not

[172 cont.]

609 obliged to return to the shore, very much discontented. Immediately
175 after breakfast, Dr. Sparrman, my father and myself accompanied
439 175 captain Cook to the shore, where a trade commenced for shaddocks and
yams, which the natives sold us in prodigious quantities. Bananas
and coco-nuts were scarce in proportion, and bread-fruit still more
291 rare, though the trees of these sorts were very numerous. All the
175 men went nearly naked, a slight covering on the loins excepted; a few
of them, however, and most of the women, were drest from the waist to
the ankles, in a piece of stiff painted cloth made of bark, wrapped
several times round them, or in mats.

As soon as our boats reached the shore, the clamours of all those
439 175 who had something to sell became so excessively loud, that we hastened
137 into the country, whose aspect was very inviting. A considerable
241 variety of plants covered the [173] ground in wild luxuriance; and the
175 great number of plantations of all sorts, made the whole island resemble
487 a beautiful garden. The fences which had confined the view at Tonga-
175 Tabboo, were here much less frequent, and only enclosed one side of
[417] the path, leaving the other open to the eye. The ground was not
487 137 perfectly level in the interior parts, but rose in several little
241 hillocks lined with hedges and bushes, which formed a most agreeable
175 prospect. The path which we met with, sometimes went under long rows
of lofty trees, planted at considerable distances, between which the
ground was covered with the richest verdure; sometimes a thick and
impenetrable arbour of fragrant shubberies vaulted over it for a
considerable space, and hid it entirely from the sun; sometimes
● 342 plantations, and sometimes wilds appeared on both sides. The houses
175 of the natives were of a singular structure; their height was about

[173 cont.]

342 eight or nine feet; but the walls, which were not perpendicular,
175 but converged towards the bottom, were not above three or four feet
from the ground, and very neatly made of reeds. The roof converged
into a ridge at the top; so that the section of the house resembled a
pentagon. It was thatched, and the roof projected beyond the sloping
walls of the house. In one of the long sides there was always an
opening about two feet square, and eighteen inches from the ground,
which served instead of a door. The length of the house never exceeded
353 thirty feet, and the breadth was [174] commonly eight or nine. The
262 inside of these houses was always filled with large roots of yams,
175 which seem to be the chief support of the natives. To sleep upon
519 175 them must be extremely uncomfortable; and yet a few mats are only
spread over them at night, which custom has made acceptable to these
[352] people. Those narrow little stools, on which the Taheitians rest the
head, are extremely frequent here, and serve the same purpose. We also
342 175 observed several open sheds, on a few posts, like some which we had
seen at Tonga-Tabboo. These were laid out with mats, and seemed to be
609 intended for their abode in the day-time. In our ramble we passed by
175 a number of these habitations, but saw very few inhabitants, they being
mostly at the trading place. Those whom we met were always very civil,
and bowed their heads, saying, *leleï* (good), *woä* (friend), or some
such word, to mark their good temper and disposition. They were our
conductors; they brought us flowers from the highest trees, and birds
out of the water; they often pointed out the finest plants to us, and
taught us their names; we needed only to show them a plant of which we
wished to have specimens, and they would go to any distance to procure it.
[431] Coco-nuts and shaddocks they readily offered to us; and willingly carried

593 561 554 [601] Under this system only constituents of the category tokoua 'siblings of ego's sex' can either be of higher rank of lower rank than ego by virtue of seniority. In this case there is a terminological distinction with older siblings of the same sex referred to as ta'okete and younger siblings of the same sex referred to as tehina. Kaeppler (1971: 176) suggests that age ranking is not very important, but it seems quite important within the sibling group for establishing order of dominance and subordination, for determining leadership on formal occasions and, of course, for determining inheritance. Figure 2 illustrates kin ranking.[A]

'Api: A Household

592 The term 'api is best translated as 'household' but it can also denote a plot of land for residence or gardening, or it can be used to refer to persons living together in a household. The Tongan household is the primary unit of production and normally functions as the largest unit for resource management.

592 351 342 343 342 [178] Each household is situated on a compound covering 1 rood, 24 perches of village land.[2] Each structure on a compound is referred to according to its function; households usually consist of a sleeping house (fale mohe), a cookhouse (fale kai or peito), a roofless bathing stall (fale kaukau), and a covered toilet (fale malolo). Sleeping houses vary in design from traditional thatch houses to brick houses with corrugated iron roofs. In houses of the more traditional design partitions are absent except for tapa cloth (ngatu) curtains separating the sleeping

[A]. [See p.45--Analyst]

[TEXT CONTINUED ON PAGE 46]

342 quarters of the household head and his wife from the rest of the house. The larger portion of the interior is used for working, receiving guests, kava parties, eating, and as a bedding area for children and other members of the household.

351 Compounds often have small garden plots of decorative or edible plants, and hedges are a common feature around compound borders. Palms. [245] breadfruit trees, mangoe trees, and other large plants with fruits or barks of an edible or medicinal value are left standing in the compound, [462] but all other vegetation is removed. The lawns are cut and swept by the [857] women and children of the household. Pigs, goats, chickens, cows and [231] horses are often picketed or penned within the compound.

Relationships within the Household

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594 Most Tongans have a preference for living in nuclear family households and this pattern is generally followed. Of the forty-two households in Puke, forty-one are nuclear families, eight of which contain an unmarried relative of the household head or the household head's 592 wife. One household includes three conjugal pairs, but two of the married couples were only recently married and have not yet established independent households. Village households have a mean size of 6.52 persons. (The 1966 Census of Tonga shows a mean household size of 6.9 persons for Tongatapu.)

592
594 A household, then, most frequently consists of a man, his wife, and their real or adopted children. Within his own house a man is tangata 'eiki 'chiefly man', and is the authority of the household.

137 **Halophila ovalis** var. **bullosa** Setchell, Carnegie Inst. Washington, Pub. **341**: 114, fig. 6, 1924.

Leaves commonly about 5 mm. wide and 1.5 cm. long, elliptic or elliptic-subspatulate, blades strongly bullate, petioles as long as, or longer than blades.

Tongatapu: on reef west of Nuku'alofa, July 15, 1926, *Setchell and Parks 15553.*

Nomuka: on sand in shallow water, exposed at low tide, below village, Apr. 30, 1953, *Yuncker 15806.*

Lifuka: on sand in shallow water, beach south of Pangai village, May 11, 1953, *Yuncker 15976.*

Frequent throughout Tonga. Also in Samoa.

FAMILY GRAMINEAE

Gramineae identifications are by J. R. Swallen.

Genus **Bambusa** Schreber

Bambusa vulgaris Schrader, in Wendland, Coll. Pl. 2: 26, pl. 47, 1810.

Coarse erect tufted grass up to 5-10 m. or more tall stems becoming thick and very hard. Blades lanceolate acuminate up to 35 cm. or more long and about 4 cm. wide but frequently smaller, sheaths auriculate at apex. Flowering infrequently, spikelets 1.5 cm. long, in large, paniculate clusters.

Tongatapu: edge of coconut plantation near Nualei village, Mar. 9, 1953, *Yuncker 15224;* in low area along trail between village of Fatai and sea, Mar. 10, 1953, *Yuncker 15256.*

Vava'u: in thicket near upper rim of steep seaside cliff along northwestern side of island, May 25, 1953, *Yuncker 16161.*

Infrequent. Widely distributed in tropical countries.

[824] [342] Two different varieties are recognized by the Tongans: a green-stemmed form called *kofe*, and one with yellow stems called *pitu*. The stems are used in house construction.

Genus **Eragrostis** Beauvois

Eragrostis amabilis (Linnaeus) Wight and Arnott, in Hooker and Arnott, Bot. Beechey Voy., 251, 1841.

Small, annual grass with erect or abruptly ascending, slender, glabrous stems up to 25 cm. or more tall. Blades up to 10 cm. long and about 4 mm. wide, sheaths long-ciliate about top. Spikelets four- to six-flowered, small, about 1 mm. long, inflorescence branches filiform, spreading to ascending in an open, usually narrowly oblong panicle, palea ciliate.

Tongatapu: in margin of grassy dooryard along coast road east of Nuku'alofa, Mar. 7, 1953, *Yuncker 15204.*

Lifuka: margin of coastal road north of Pangai, Apr. 25, 1953, *Yuncker 15726.*

Tafahi: in grassy area near school house, Dec. 17, 1951, *Hürlimann 580.*

Niuatoputapu: near shore near Vaipoa, Dec. 7, 1951, *Hürlimann 378.*

Occasional. Widespread in warm countries.

Genus **Centotheca** Desvaux

Centotheca lappacea (Linnaeus) Desvaux, Soc. Philom., Nouv. Bull. 2: 189, 1810.

Erect, rather stout grass, the culms up to 80 cm. or more tall. Blades lanceolate, up to 15 cm. long and 1-3 cm. wide. Spikelets green, about 5 mm. long, in terminal panicles up to 15 or 20 cm. long, branches several, slender, spreading.

'Eua: in ravine above Fuai, on steep slope in forest, Nov. 8, 1951, *Hürlimann 168.*

Vava'u: on forested slope, margin of Lake Anovai, May 19, 1953, *Yuncker 16048;* in open area along upper rim of coastal limestone cliffs on northwestern coast, May 25, 1953, *Yuncker 16174.*

Tafahi: in forest along road from Tafahi township to Piu 'o Tafahi, Dec. 10, 1951, *Hürlimann 414.*

Niuatoputapu: border of breadfruit plantation on south side of mountain ridge, opposite Vaipoa, Dec. 27, 1951, *Hürlimann 635;* on northwest side of the ridge above Hihifo in clearing in forested area, Dec. 5, 1951, *Hürlimann 337.*

Occasional throughout Tonga. From Tropical Africa and Asia through Malaya to Australia and Polynesia.

Genus **Arundo** Linnaeus

Arundo donax Linnaeus, Sp. Pl., 81, 1753.

Stout, coarse, reedlike grass, culms clumped, up to 5 or 6 m. tall, rhizome thick and knotty. Blades rather long, distichous, up to 5 cm. or more wide, margins scabrous. Panicle large, up to 50-60 cm. long, spikelets about 12 mm. long, the lemmas densely soft-hairy.

Lifuka: in old clearing about mid-island along trans-island road between Pangai and eastern side of island, May 6, 1953, *Yuncker 15767.*

Infrequent. Widespread in warm countries.

Tongan name: *kaho folalahi.* The stems are used in the construction of house walls. 824 342

Genus **Vetiveria** Bory

Vetiveria zizanioides (Linnaeus) Nash, in Small, Fl. Southeastern United States, 67, 1913.

Coarse, erect, tufted grass, stems up to 2 m. tall, roots somewhat aromatic. Leaves distichous, blades up to 1 m. long and about 1 cm. wide, more or less folded. Spikelets

137 Frequent along the strand throughout the group. Ceylon to Madagascar, Malaya, Australia, and Polynesia.

T. sarmentosa Pers. in Hemsley's and Burkill's lists.

Tongan names: *mohuku'apopoa, mohuku'apopoa tahi, musie liku, kefukefu.*

Genus **Spinifex** Linnaeus

? **Spinifex littoreus** (Burmann f.) Merrill, Philippine Jour. Sci. 7C: 229, 1912.

Coarse, rigid, widely spreading, prostrate grass. Blades involute, rigid, short, aggregated toward tops of stems, sheaths somewhat imbricate.

Tongatapu: on sandy flats outside Fatai, water-covered at high tide, Oct. 30, 1951, *Hürlimann 73*. Specimen sterile.

Covers large areas locally. India, China, Malaya, and Polynesia.

Genus **Imperata** Cyrillo

Imperata cylindrica (Linnaeus) Beauvois, Ess. Agrost., 165, 1812.

Rather slender, somewhat tufted, erect grass with strong rhizome, flowering culms up to 50 cm. or more long, glabrous. Blades up to about 20 cm. or more long and 6 mm. wide, acuminate. Spikelets paired, unequally pedicellate, surrounded by long, silky hairs, in a terminal, narrow, silky panicle.

'Eua: plants scattered about in open grazing area below summit of eastern ridge, Mar. 24, 1953, *Yuncker 15457*.

Kao: in open grassy, alpine area, 600-900 m. alt., May 6, 1953, *Yuncker 15918, 15936*.

Infrequent. Warm parts of the Old World, Polynesia. Introduced into America.

Genus **Miscanthus** Andersson

Miscanthus floridulus (Labillardière) Warburg, ex Schumann and Lauterbach, Fl. Deutsch. Schutzg. Südsee, 166, 1901.

Tall, reedlike, tufted grass, culms pithy, up to 3 m. or more tall, erect. Leaves numerous, blades up to 1 m. long and 2 cm. wide, linear, long-attenuate-acuminate, margin scabrous. Spikelets in pairs, with a tuft of silky hairs at base, hairs about as long as spikelet, in long, slender, spikelike racemes forming a large fanlike panicle up to 30 cm. or more long.

Tongatapu: in low moist area near Nualei, Mar. 9, 1953, *Yuncker 15241*.

'Eua: on slopes of a large sinkhole area near center of island, Mar. 20, 1953, *Yuncker 15388*.

Lifuka: about mid-island along road from Pangai to east coast, Apr. 27, 1953, *Yuncker 15755*.

Occasional throughout Tonga. Malaysia to Polynesia.

Tongan names: *kaho, kaho foi'iki.*

[824] [312] The stems are used in the construction of house walls.

Genus **Saccharum** Linnaeus

Saccharum officinarum Linnaeus, Sp. Pl., 54, 1753. 137

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The sugar cane is a common plantation crop, though not cultivated on a commercial basis. Tongans chew the stalks to obtain the sugary sap, and the leaves are used as thatching material (fig. 8). The Tongan name is *to* and at least seven varieties are distinguished as follows.

Au: stem is green; leaves supply a favorite material for house thatching.
Fo'ufa'u: stem is light green, with long internodes.
Heleveka: stem is red with white stripes.
Ngata hina: stem is green and thick.
Ngata kula: stem is red and thick.
To hina: stem is green and slender.
To kula: stem is red and slender.

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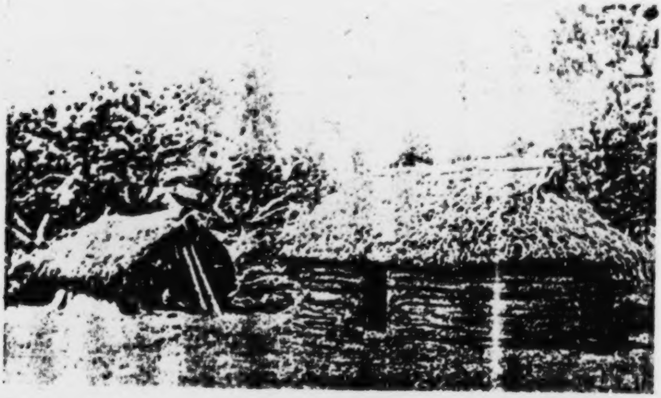

FIGURE 8.—Typical Tongan house showing characteristic oval shape, sugar-cane leaf thatch, and walls of interlaced coconut leaves.

Genus **Andropogon** Linnaeus

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Andropogon intermedius R. Brown, Prodr. Fl. Nov. Hollandiae, 202, 1810.

Erect, loosely tufted, rather stout grass, up to 1 m. or more tall. Blades linear, up to 50 cm. or more long and 5 mm. wide, the margins slightly scabrous, clasping at the base. Panicles purplish, up to 15 cm. or more long, branches very slender, ascending to spreading, sessile spikelets about 3 mm. long, bearing an awn about 15 mm. long.

'Eua: in open grazing area near top of eastern ridge, Mar. 24, 1953, *Yuncker 15440;* in open grassy area near center of island, Mar. 29, 1953, *Yuncker 15546.*

Vava'u: *Crosby.*

Occasional. Asia, Africa, New Hebrides, Australia, and Polynesia. *A. intermedium* R. Br. in Burkill's list.

Vava'u: *Crosby;* near upper rim of steep seaside cliff above Leimatua, May 30, 1953, *Yuncker 16060.*

Niuafo'ou: near upper edge of recent lava flow on way to upper rim of main crater, May 16, 1953, *Yuncker 15993;* on shore of great lake in sector of Futu, Jan. 7, 1952, *Hürlimann 667.*

Niuatoputapu: on mountain ridge above Vaipoa, Dec. 5, 1951, *Hürlimann 355.*

Occasional throughout the group but abundant on Niuafo'ou. From Indo-Malaysia to Polynesia and now in cultivation in most tropical countries.

Tongan name: *toa.*

The bark is used in medicines and the hard, durable wood is a favorite in the construction of houses, the manufacture of tool handles, and so forth.

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FAMILY PIPERACEAE

Genus **Piper** Linnaeus

Piper latifolium Linnaeus f., Suppl. Pl. Emendanda, 468, 1781.

Shrub, up to 3 m. or more tall. Leaves suborbicular, shortly acute, base rounded-truncate or cordate, up to about 10 cm. wide or sometimes much larger, glabrous, palmately 11-12-nerved, petiole up to 6 cm. in length, vaginate-winged to near blade. Spikes multiple, axillary, up to 10 cm. or more long and 4-6 mm. in diameter, floral bracts round-peltate, flowers dioecious.

Tongatapu: *Forster; Moseley.*

I found no specimens of this species, and I suspect that the ones collected by Forster and by Moseley, as reported by Hemsley, are *P. puberulum* (Bentham) Bentham. Not having these specimens available at the present time, it is not possible to determine their identity. *P. latifolium* is said to occur from the Society Islands westward to the New Hebrides, although it appears to be absent from Samoa and Fiji.

Piper methysticum Forster f., De Plant. Esculent., 76, 1786.

Shrub with thick, woody rhizome, up to 3 m. or more tall, glabrous, nodes swollen. Leaves round-ovate, short-acuminate, base deeply cordate, up to 20 cm. or more long and 15-20 cm. wide, palmately 9-13-nerved, nerves minutely puberulent beneath, petiole up to 3 cm. long, vaginate at base. Spikes leaf-opposed, solitary, up to 5 or 6 cm. long, greenish white.

Tongatapu: *Home.*

'Eua: *Lister;* cultivated at Fuai plantation near center of island, Mar. 28, 1953, *Yuncker 15541.*

Vava'u: *Crosby;* along trail on way to summit of Talau, west of Neiafu, May 23, 1953, *Yuncker 16149.*

Of ancient introduction. Aside from one or two plantings of less than an acre each, all of the plants noted were occasional specimens about villages or borders of plantations, and the like.

137 Tongatapu: in thicket near sea, Sopu, Feb. 25, 1953, *Yuncker 15013.*

'Eua: in thicket northeast of Ohonua village, Apr. 2, 1953, *Yuncker 15625.*

Nomuka: in thicket on seaward side of road encircling island, Apr. 30, 1953, *Yuncker 15851.*

Vava'u: forming a large colony on seaside cliff along trail to Talau, west of Neiafu, May 23, 1953, *Yuncker 16145.*

Frequent throughout Tonga. A tropical American plant now of pantropic distribution.

Tongan name: *siale mohemohe.*

[313]
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The timber is used for posts and in house construction.[1]

Leucaena insularum (Guillemin) Daniker, Nat. Ges. Zürich, Vierteljahrschr. 77: Beibl. 19, 176, 1932.

Small tree, up to 5 m. or more tall, the young growth puberulent. Leaves alternate, bipinnate with eight or more pairs of pinnae, leaflets oblong, 45 or more on each pinna, acutish, obliquely inequilateral, up to about 7 mm. long, sessile. Flowers very small, pale pink, in globose, headlike, axillary, pedunculate clusters, peduncles up to 2 cm. or more long; pods slightly curved, up to 10 cm. or more long and 2 cm. wide.

Tongatapu: *Cook;* at shore north of Hofoa, Oct. 30, 1951, *Hürlimann 92;* near beach below Niutoua village, Mar. 2, 1953, *Yuncker 15108.*

'Eua: forming dense thicket along strand short distance above high-tide limit, Lokupo, Mar. 27, 1953, *Yuncker 15532.*

Lifuka: in thicket near beach at southern end of island, Apr. 28, 1953, *Yuncker 15791.*

Rather frequent throughout Tonga. Fiji, Niue, and New Caledonia.

L. forsteri Benth. in Hemsley's list.

Tongan names: *feifai, mohemohe.*

The timber is used in handicraft work.

[313]
[322]
[824]

Genus **Mimosa** Linnaeus

Mimosa pudica Linnaeus, Sp. Pl., 518, 1753.

Low, decumbent, subwoody, loosely branching, prickly plant. Leaves bipinnate, pinnae usually in one or two pairs, each with 15 or more pairs of linear-oblong leaflets up to 8 mm. or more long, acute, asymmetrical, sessile, sensitive. Flowers small, in globose, rose-pink, headlike, pedunculate, axillary clusters; the pod flat, thin, 1-2 cm. long, bristly.

Tongatapu: in waste area near Nualei, Oct. 29, 1951, *Hürlimann 45;* in grassy area near Niutoua village, Mar. 2, 1953, *Yuncker 15158.*

'Eua: *Lister.*

Vava'u: *Harvey, Crosby.*

A common weed in plantations, grazing areas and waste areas throughout Tonga. An American species now pantropic in distribution.

Tongan name: *mateloi.*

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[1] /Leucaena glauca -- Analyst/

137 'Eua: *Parks 16262* [cited by Croizat]; forested area near center of island, Mar. 18, 1953, *Yuncker 15322.*

Infrequent. Also in Fiji.

Genus **Macaranga** Thouars

Macaranga harveyana (Mueller-Argoviensis) Mueller-Argoviensis, in DC. Prodr. 15(2): 998, 1866.

Small, soft-wooded, dioecious tree, up to 8 m. or more tall, branchlets stout, pithy. Leaves alternate, peltate, round-ovate, acuminate, very shallowly toothed or entire, paler and golden glandular-dotted beneath, about eight-nerved from petiole, midrib branched upward, up to 20 cm. or more long and 18 cm. wide, commonly somewhat smaller, petioles up to 15 cm. or more long, stipules lanceolate, long-acuminate, up to 2 cm. long. Flowers small, in axillary, paniculate-racemose clusters; fruit depressed-globose, soft-spiny, about 1 cm. in diameter.

Tongatapu: *Moseley;* thicket along road near Vaini village, Feb. 26, 1953, *Yuncker 15053* (male), *15065* (female).

'Eua: *Lister;* margin of old plantation between Pangai village and Fuai, Mar. 25, 1953, *Yuncker 15482.*

Lifuka: thicket near northern end of island near Lifuka end of interisland causeway, May 11, 1953, *Yuncker 15980.*

Kao: lower margin of forest near old plantation, May 6, 1953, *Yuncker 15960.*

Vava'u: *Crosby;* in clearing on slope above the lagoon at Vaihoi, May 26, 1953, *Yuncker 16200.*

Tafahi: forest along path to Piu 'o Tafahi, alt. 150 m., Dec. 10, 1951, *Hürlimann 406.*

Frequent throughout Tonga. Fiji, Niue, and Samoa to the Society Islands.

Tongan name: *loupata.*

The timber is used for house construction, handicraft work, banana shooks, and other purposes; the leaves, for covering *umu* (ovens), for wrapping fish, and in medicines used for stomach disorders in infants.

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Macaranga seemannii (Mueller-Argoviensis) Mueller-Argoviensis, in DC. Prodr. 15(2): 999, 1866.

Tree up to 18 m. tall, branchlets and petioles subglabrous. Leaves alternate, broadly ovate, long-acuminate, base rounded, peltate 2.5-7.5 cm. from margin, six- to eight-nerved from petiole, glandular beneath, nerves beneath puberulent, up to 30 cm. long and 22 cm. wide but commonly somewhat smaller, petiole up to 18 cm. long, stipules oblong-lanceolate, up to 4 cm. long and 1 cm. wide. Flowers small, in axillary, paniculate clusters up to 12 cm. long; fruit smooth, glandular.

Tongatapu: *Cook; U.S. Expl. Exped.*

Infrequent. Also in Fiji.

Genus **Securinega** Jussieu

137 **Securinega samoana** Croizat, B. P. Bishop Mus., Bull. 184: 45, 1945.

Small to medium-sized tree up to 10 m. tall. Leaves alternate, elliptic or elliptic-subobovate, glabrous, acuminate, base subacute, pinnately nerved, nerves six to eight on each side, up to 12 cm. or more long and 6 cm. wide, on petioles scarcely 1 cm. long. Flowers white, very small, numerous, on pedicels about 5 mm. long, in axillary clusters; fruit black.

Tafahi: in forest along road between township of Tafahi and landing place at Faihavanui, alt. 100 m., Dec. 15, 1951, *Hürlimann 562.*

Niuatoputapu: in forest, slope of ridge above Hihifo, alt. 60 m., Dec. 5, 1951, *Hürlimann 339.*

Known in Tonga from only the northernmost islands. Samoa.

Tongan name: *poumuli.*

824 The timber is very hard and is used for various purposes, including house
342 construction.
313

Family ANACARDIACEAE

Genus **Mangifera** Linnaeus

Mangifera indica Linnaeus. Sp. Pl., 200, 1753.

Large, dense, round-topped tree. Leaves alternate, simple, oblong-lanceolate, acute, coriaceous and somewhat shiny, pinnately nerved, midrib prominent, young leaves often reddish, petioles up to 5 cm. or more long. Flowers small, yellowish white, in large, terminal panicles; fruit a fleshy, edible drupe with a large, compressed, fibrous stone.

Tongatapu: roadside south of Ma'ofanga, Nov. 23, 1951, *Hürlimann 320.*

Introduced for its fruit and common about villages throughout Tonga, this tree grows spontaneously in thickets, along roadsides, and so forth. A tropical Asiatic species now cultivated in tropical regions throughout the world.

137 Tongan name: *mango.* The following varieties are recognized:

262 *Mango kaimata:* fruit is sweet and edible before it is fully ripened. Various forms of this variety are based on the size of the fruit.

Mango kalasini: fruit has an odor resembling kerosene.

Mango lesi: fruit is of medium size and of the best quality. Three or four forms of this variety are recognized.

Mango nui: fruit is very large.

Genus **Spondias** Linnaeus

137 **Spondias dulcis** Parkinson, Jour. Voy. Endeavour, 39, 1773.

Medium to large, stiff-branched tree, up to 15 m. or more tall. Leaves alternate, odd-pinnate, leaflets commonly 11 to 15, oval-lanceolate or oblong, acuminate, base acute, remotely finely toothed, up to 8 cm. or more long and 2.5 cm. wide. Flowers small, numerous, whitish, in large, paniculate clusters; the fruit yellow, oval-obovate, up to 7 cm. or more long, fleshy, edible.

76: Yuncker N-4,5 (1953) 1959 OU9 Tonga OU9

137 Tongatapu: *Forster;* forest near village of Niutoua, Mar. 2, 1953, *Yuncker 15168.*

'Eua: open forest along trail between Pangai village and Fuai, Mar. 25, 1953, *Yuncker 15486.*

Vava'u: *Crosby.*

Niuatoputapu: near township of Vaipoa, on road to Falehau, alt. 5 m., Dec. 7, 1951, *Hürlimann 377.*

Occasional throughout Tonga. Malaya, New Guinea, and Polynesia.

Tongan name: *tava.*

Varieties are recognized under the following names: *tava kula, tava moli, tava toua.*

[824] [313] [342] [262] [278] The timber[1] is used in house construction, for tapa pounders, for banana shooks, and so on; the fruit is sometimes eaten; and the bark is used in medicine for "stomach troubles."

Genus Guioa Cavanilles

Guioa lentiscifolia Cavanilles, Icones Descr. Pl. 4: 50, pl. 373, 1797.

Small tree 3-5.5 m. tall, young twigs, leaves, and so forth puberulent. Leaves alternate, pinnately compound, leaflets varying in number, apex rounded, obtuse to acute, base narrowed and decurrent on very short petiolule, up to 6 cm. long and 3 cm. wide but mostly smaller, pinnately nerved, midrib prominent, lateral nerves slender, submarginally loop-connected. Flowers small, white, in terminal and axillary, paniculate clusters; fruit strongly lobed, up to 2 cm. wide.

'Eua: seaward margin of forest on terrace above village of Houma on northwestern side of island, alt. about 160 m., Mar. 26, 1953, *Yuncker 15503;* thicket, edge of forest above Fuai plantation, near center of island, Mar. 29, 1953, *Yuncker 15545.*

Vava'u: near upper rim of seaside cliff above Ha'alaufuli on northeastern side of island, alt. about 120 m., May 21, 1953, *Yuncker 16106.*

Tongan name: *'olive.*

The cited specimens certainly appear to represent the endemic described and [113] illustrated by Cavanilles and further briefly discussed by Radlkofer (Sitzber. Math.-Phys. Kl. Akad. Wiss. München 9: 608, 1879; Pflanzenr. 98 [IV. 165]: 1158, 1933). It may be noted that Radlkofer defines *Guioa* as having squamate petals, but Cavanilles gives no indication of this character in his description or plate, and the material now dissected (*Yuncker 15503*) shows the petals to be esquamate. As *G. lentiscifolia* is the genotype, a revision of Radlkofer's circumscription is a matter for the future monographer to consider. Actually, on the basis of other characters, the many species now referred to *Guioa* seem correctly placed, but less dependence upon petal characters may [113] be indicated. Possibly this is the species listed by Hemsley (Linn. Soc. Bot. Jour. 30: 172, 1894) and Burkill (op. cit. 35: 33, 1901) as *Guioa glauca*

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[1] /Pometia pinnata -- Analyst/

137 Tongan names: *feta'u, tamanu.*
824 This strong and durable wood[1] is used in house construction and other
342 building purposes, and sections of the trunk are used to make large kava
313 bowls. The oil from the seeds is used medicinally.
415
278 **Calophyllum vitiense** Turrill, Linn. Soc. Bot., Jour. 43: 17, 1915.

Tree, up to 10 m. or more tall, stems to 35 cm. in diameter. Leaves opposite, oblong-elliptic, obtuse or acute, base acute-decurrent, up to 13 cm. or more long and 5 cm. wide, leathery, glossy, entire, pinnately nerved, midrib prominent, lateral nerves very slender, numerous, parallel, petiole 1-2 cm. long, canaliculate. Flowers about 1.5 cm. wide, in racemose, axillary clusters, corolla pink, stamens numerous; fruit subglobose, 2 cm. or more in diameter, outer flesh pink when young.

'Eua: margin of forest near summit of eastern ridge, Mar. 24, 1953, *Yuncker 15435;* forest near center of island, Mar. 18, 1953, *Yuncker 15326.*
Kao: in forest on steep, rocky slope, May 6, 1953, *Yuncker 15883.*
Occasional. Also in Fiji and the Solomon Islands.

No differences of consequence are apparent among these specimens and the numerous Fijian collections referred to *C. vitiense,* except that the latter have white flowers. This species, not otherwise recorded from Tonga, is probably the one listed by Hemsley (Linn. Soc. Bot., Jour. 30: 169, 1894) as *C. spectabile* and by Burkill (op. cit. 35: 27, 1901) as *Calophyllum* sp. (A. C. Smith).

Tongan name: *tamanu.*

824
313 The timber is strong and hard and is used for building purposes.

Genus **Garcinia** Linnaeus

Garcinia myrtifolia A. C. Smith, Jour. Arnold Arboretum 31: 315, 1950.

Glabrous tree, up to 7 m. or more tall, the trunk up to 25 cm. in diameter. Leaves elliptic or subovate, up to 14 cm. long and 7 cm. wide, obtuse or short-acute, base rounded, abruptly acute-decurrent, subcoriaceous, pinnately nerved, midrib prominent, lateral nerves numerous, very slender, petiole stout, canaliculate, about 1 cm. long. Flowers mostly solitary, on axillary pedicels about 1 cm. long; fruit ellipsoidal, about 2 cm. in diameter, with an apical crownlike thickening.

'Eua: edge of forest near center of island, Mar. 20, 1953, *Yuncker 15381.*
Kao: in forest on steep, rocky slope, May 6, 1953, *Yuncker 15908, 15955.*
Occasional.

These interesting specimens are clearly referable to the supposed Fijian endemic, of which at least three other Fijian collections have been noted since its description (A. C. Smith).

824 Tongan name: *feto'omaka.*
303 The bark is used for scenting oil.

Garcinia pseudoguttifera Seemann, Fl. Vit., 40, 1865.

Tree, up to 6 m. or more tall. Leaves opposite, obovate, apex rounded, emarginate, base acute-decurrent, up to 7 cm. or more long and 5 cm. wide, coriaceous, pinnately

[1] /Calophyllum inophyllum -- Analyst/

'Eua: ***Lister;*** in forest near center of island, Mar. 19, 1953, ***Yuncker 15351;*** edge of forest, Fuai, near center of island, Mar. 19, 1953, *Yuncker 15362;* margin of forest near summit of eastern ridge, Mar. 24, 1953, *Yuncker 15436;* near shore near Ha'aluma, Apr. 1. 1953, *Yuncker 15589.* 137

Vava'u: *Crosby;* margin of forest above Feletoa village, May 19, 1953, *Yuncker 16021;* top of seaside cliff above Ha'alaufuli, May 21, 1953, *Yuncker 16087;* on seaward face of the limestone coastal cliff below Ha'alaufuli, May 21. 1953, *Yuncker 16095, 16102;* upper rim of seaside limestone cliff on the northwestern side of the island, May 25, 1953, *Yuncker 16177.*

Frequent throughout Tonga. Also in Fiji and southeastern Polynesia.

Tongan names: *filimoto, olamaka, kakala'uli.*

The timber[1] is used in some house construction. 824 313 342

Genus **Flacourtia** L'Héritier

Flacourtia rukam Zollinger et Morren, Syst. Verz., 33, 1854.

Small or medium-sized tree up to 8 m. or more tall. Leaves simple, alternate, up to 15 cm. long and 8 cm. wide, elliptic-ovate, crenate, attenuately acuminate, base acute, on petioles scarcely 1 cm. long. Flowers small, greenish; fruit green, about 1 cm. long.

Niuatoputapu: secondary forest, base of range above Hihifo, alt. 40 m., Dec. 5, 1951, *Hürlimann 336.*

Infrequent. Dutch East Indies, Carolines, Niue, Samoa.

Genus **Homalium** Jacquin

Homalium vitiense Bentham, Linn. Soc. Bot., Jour. **4**: 36, 1860.

Hemsley (Linn. Soc. Bot., Jour. **30**: 178, 1895) lists a collection of this species made by Lister on 'Eua. It has been assumed that this species is a Fijian endemic. The species of the genus are difficult to separate and, not having the Lister collection for study, I have not been able to verify its identity.

FAMILY PASSIFLORACEAE

Genus **Passiflora** Linnaeus

Passiflora edulis Sims, Curtis's Bot. Mag. **45**: pl. 1989, 1818.

Glabrous, tendril-bearing vine. Leaves alternate, broadly ovate in outline, deeply palmately three-lobed, lobes serrate, sharply acute, sinus rounded, petioles mostly about 2 cm. long, with pair of conspicuous glands near base of blade. Flowers axillary, about 5 cm. wide, purplish white; fruit globose, about the size of a small egg, rind hard, pulp edible.

'Eua: trailing on ground in open area in Mua village, Apr. 7, 1953, *Yuncker 15666.*

A tropical American species widely disseminated in warm countries as an ornamental. It sometimes escapes and becomes established.

Tongan name: *vaine tonga.*

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[1] /Xylosma orbiculatum -- Analyst/

Lifuka: in thicket near sea, north of Pangai village, Apr. 25, 1953, *Yuncker 15753;* on low cliff along eastern side of island, Apr. 21, 1953, *Yuncker 15771.* 137

Vava'u: *Crosby;* in seaside forest below Houma village, May 22, 1953, *Yuncker 16137.*

Tafahi: in forest between township of Tafahi and landing place, Tafe, Dec. 13, 1951, *Hürlimann 504.*

Frequent near shore throughout Tonga. A southern Asiatic species extending to the Philippines and Polynesia.

B. butonica Forst. in Hemsley's list and *B. speciosa* L. f. in Burkill's list.

Tongan name: *futu.*

The timber[1] is used for house construction, banana shooks, and so forth; the trunks, for dugout canoes; and the bark, as a fish poison. 824 313 342 396 226

FAMILY RHIZOPHORACEAE

Genus **Rhizophora** Linnaeus

Rhizophora mangle Linnaeus, Sp. Pl., 443, 1753.

Round-topped, much-branched tree, sometimes up to 10 m. tall, bearing many, pendent, aerial roots which form an impenetrable entanglement. Leaves opposite, elliptic or obovate-elliptic, apex blunt and often slightly notched, base acute and decurrent on petiole, up to 10-12 cm. long and 6-7 cm. wide, somewhat leathery, pinnately nerved, midrib stout, lateral nerves slender. Flowers few, four-parted, about 2 cm. wide, yellow, in simple, axillary, cymose clusters, seed usually germinating while on tree, producing a radicle up to 30 cm. long.

Tongatapu: forming a grove on the tidal flat at Sopu, west of Nuku'alofa, Feb. 25, 1953, *Yuncker 15023;* May 30, 1953, *Yuncker 16206.*

Nomuka: along shore of large central lake, Apr. 30, 1953, *Yuncker 15847.*

Vava'u: along shore below Houma village, May 22, 1953, *Yuncker 16130;* along shore of lagoon, Vaihoi, near Leimatua village, May 26, 1953, *Yuncker 16185.*

Occasional throughout Tonga. Tropical America and westward to Fiji, Samoa, and Tonga, where it seems to meet but remain distinct from the following species.

Tongan name: *tongolei.*

The timber is durable and used in a variety of ways; the roots are used in house construction; the sap, for dyeing. 824 313 342 386

Rhizophora mucronata Lamarck, Encycl. Méth. 6: 189, 1804.

This species closely resembles the preceding, differing chiefly in having sharply pointed leaves.

Vava'u: *Harvey; Crosby.*

Infrequent. A species of the Old World tropics extending into Polynesia.

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[1] /Barringtonia asiatica -- Analyst/

Terminalia litoralis [*fide* Index Kewensis] Seemann, Fl. Vit., 94, 1865.

Small tree, up to 6 m. or more tall. Leaves clustered near ends of branches, obovate, apex rounded to slightly emarginate, base narrowly obtuse, entire, pinnately nerved, up to 15-18 cm. long and 10-12 cm. wide. Flowers white, small, in narrow, elongated, racemose, axillary clusters; fruit ellipsoidal, up to 2.5 cm. long, somewhat angled but scarcely ridged.

Terminalia litoralis var. **litoralis.**

Branches, leaves, and inflorescence parts glabrous.

Tongatapu: in strand forest below the village of Fu'amotu, Mar. 4, 1953, *Yuncker 15171.*

Nomuka: in thicket near the central lake, along the road encircling the island between the sea and the central lake, Apr. 30, 1953, *Yuncker 15852.*

Terminalia litoralis var. **tomentella** Hemsley, Linn. Soc. Bot., Jour. 30: 177, 1895, *nomen nudum.*—Burkill, Linn. Soc. Bot., Jour. 36: 37, 1901.

Young branches, petioles, peduncles, pedicels, and lower leaf surface tomentulose.

Tongatapu: in thicket near shore, Sopu, west of Nuku'alofa, Feb. 25, 1953, *Yuncker 15017, 15021,* May 30, 1953, *Yuncker 15300.*

'Eua: *Lister;* seaward margin of forest on terrace above Houma village, Mar. 26, 1953, *Yuncker 15494.*

Lifuka: *Harvey.*

Vava'u: *Harvey.*

On the basis of the material collected and observed in the field, variety *tomentella* is more common than variety *litoralis.* The species is variable and the status of variety *tomentella* is somewhat questionable. It is frequent in seaside thickets throughout the group. This species also occurs in Fiji and other parts of Polynesia.

Tongan name: *telie'amanu.*

The wood is used to some extent in house construction.

[824]
[342]
[313]

Genus Lumnitzera Willdenow

Lumnitzera littorea (Jack) Voigt, Hort. Suburb. Calcut., 39, 1845.

Small, glabrous tree, up to 5 m. or more tall. Leaves alternate, crowded toward the ends of the branches, spatulate, the apex rounded, emarginate, the base cuneate, entire, up to about 8 cm. long, faintly pinnately nerved, subsessile on very short petioles. Flowers about 1 cm. or less wide and 1-2 cm. long, subsessile, in terminal or subterminal, loose, spikelike clusters, the calyx green, the corolla bright red; the fruit ellipsoidal, crowned with the calyx, 2 cm. or more long.

Tongatapu: *U.S. Expl. Exped.;* in seaside thicket, Sopu, west of Nuku'alofa, Feb. 25, 1953, *Yuncker 15020,* May 30, 1953, *Yuncker 16208.*

'Eua: *Lister.*

Locally distributed in Tonga. Along the coasts from tropical Asia to Australia and Polynesia.

Tongan name: *hangale.*

5

77: Whitcombe Y-3 (no date) 1930 OU9 Tonga OU9

NOTES ON TONGAN ETHNOLOGY

By J. D. Whitcombe[1]

HOUSE-BUILDING

342 [824]

The framework of a native house is made of coconut palms thinned down to the sizes required. First the roof (*kahoki* or *sa*) is made; then the thin ribs (*aonui*) which run from end to end of the house. For the ceiling, heavier beams (*lalago*) are used; there may be two or four of these, depending upon the size of the house. Resting on the four house posts are two cross beams (*apai*), also of heavy coconut wood.

[824]

Coconut wood is not used for the house posts. A stronger tree, such as the *koka*, the *filimoto*, the *gesi*, or the *boumuli* usually is chosen. When the house posts have been erected, the ceiling beams strongly bound with *kafa* put in place, and the ribs for the roof attached, the structure is ready for roof and sides. The roof is usually [824] thatched with coconut leaves or with *au* (a plant closely resembling the sugar cane). The leaves of the *au* do not rot as do those of sugar cane, and they withstand the weather so well that houses thatched with *au* have been known to last as long as fourteen years. The young *au* leaves (*ho au*) are threaded on split *kaho* sticks to make the thatch (*tui au*) which is tied to the roof ribs from the inside with *kafa*. The *tui au* is placed one row upon another, starting from the lower part of the roof and working toward the top. A mat *tapakau* made of the very young leaf of the coconut palm is placed under the thatch at the edge of the roof to catch the leaks. This serves as a rain spout (*tali tulutulu*). The roof is completed with a capping of coconut leaves, which are always used even though the thatching is done with *au*. The leaves are plaited, four usually being sufficient to cap a house.

The sides of most houses are made of coconut leaves or of *kaho* sticks. If coconut leaves are used they are first split and trimmed, then plaited and finally bound with *kafa* to the framework. The

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[1] The notes and vocabularies included in the following pages have been collected by Mr. J. D. Whitcombe, at one time Head of the Mission School at Mua, Tongatabu, but now of Devonport, Auckland, New Zealand. Most of the material has been gathered by Mr. Whitcombe from original sources, but some of it has been translated from manuscripts submitted by native students who were able by word of mouth to get from the old inhabitants first-hand information about the early customs and traditions of the Tongans. The material is presented here in the form of miscellaneous notes with the idea of making available to students of Tongan ethnology information which, though incomplete and scattered, may prove valuable for reference. [114] [115]

[p. 3]

342 *kaho* sticks are placed in position around the sides of the house and bound with *kafa,* to form a siding which is called *lu kaho.*

The door (*mataba*) of a Tongan house is made from coconut leaves plaited and tied together, and is arranged to pull up and down [352] (*bola*). The floor is made by leveling the earth on which the house stands and covering it first with dry coconut leaves, then with very [285] young coconut leaves plaited into mats. These mats are dried in the sun a few days before being used.

342 343 There are three types of Tongan houses: the dwelling house (*fale nofoaga*): the store house in which all food is kept (*fale feleoko*), and the kitchen or cooking house (*fale beito*).

BUILDING THE CANOE

396 The Tongans make their canoes from any one of several trees: the *buko vili,* the *tavahi,* the *toi,* the *bibi,* the *gatae,* the *fotulona,* and the *vi.* A large tree of one of these species is cut down, shaped, and the center scooped out. The outrigger (*hama*) is then made from the wood of the *tou* tree, and the outrigger sticks from the wood of the *bibi* tree (*bibi fai lolo*). The joins are made from the *tutu uli,* and the *hama* bound with *kafa* which is made from coconut husk fiber. Finally, the paddles are made, a large coconut shell provided as a bailer, and the canoe is ready for the sea.

501 The ordinary canoe is termed *babao* and the seagoing canoe *kalia.*

NATIVE METHODS OF FISHING

226 Diving (*ukuuku*). The diver, equipped with a one-pronged spear, dives down beside the coral reefs and hunts for fish that may be hidden in the caves of the reef. Sometimes the native divers secure rock cod, sharks, and other fish nearly as large as themselves.

Fish traps (*ba ika*). These are built by placing sticks in a circle, fence-fashion, leaving a gate or door into the circle. To a long creeper (*valai*), used as a rope, are attached split coconut leaves to act as wings or guides. The fish get inside these guides and follow them into the trap. The fence is erected in the tide and inspected when the tide is low.

Turtle nets (*kupega fonu*). These are made from coconut string (*kafa*), and are placed in the center of passages in the reef to trap the fish.

226 Fish nets (*finaki*). A fish net is made from the leaves of the
[286] coconut palm. The roots are plaited into a round net very much like
a lobster net; when ready it is sunk in the sea, weighed down by a
stone or some heavy weight. The fish swim into an opening in the net.

USES OF THE COCONUT PALM

824 The coconut tree is considered by the natives to be the most useful
tree in Tonga. It is indispensable in house building, and the number
[481] of articles made from its wood and leaves is remarkable. The heart
[278] of the tree is used for *making walking sticks, the bark for medicine,*
[226] the roots for a kind of fish net called *finaki,* the leaves for baskets,
[285] [342] thatching houses, and making mats and flooring. The uses of the
[353] fruit are innumerable.

824 As a medicine the fruit is given to pregnant women to increase
853 the supply of breast milk. For this the green nuts are used. A new-
[843] born child is always given *namoa,* which is made from the roasted
flesh of the ripe nut. This roasted flesh is chewed by someone,
usually a woman, and when taken from the mouth is rolled in a piece
of *fetaaki,* squeezed, and the juice given to the child. This is his
only food for four days.

824 Ripe coconuts are valuable for copra, which is the dried flesh.
[439] This is sold to European markets largely, where it is used for soap,
candles, oils, and a variety of products. The shells of the coconut are
[314] burned and made into charcoal (*malala*) for ironing. Kava cups also
[415] are made from the shells.

824 No native food is considered complete without the presence of
262 coconut in one form or another. Yams, fish, and bananas are usually
[252] cooked in the milk extracted from the flesh of the ripe coconut and
strained through coconut fiber.

824 Brooms are made from the ribs of the leaf, and the leaf stem is
[412] used for stirring oil, also as weights for tapa which is spread on the
[287] ground for printing. The bark (*kaka*), which surrounds the leaves
[415] at the body of the palm, is used to make bags for wrapping arrow-
root and medicines.

The several varieties of coconut palms have different uses.

VARIETIES OF COCONUT PALMS

245 KAFA. The nut is gathered when green and husked, the husk put in a native
824 oven and left for two weeks, after which it is taken out and beaten to re-
[285] move all the dust. The fiber thus obtained is plaited into mats.

643 supreme sanctity and giving his dynasty pre-eminence. Referring to the Tu'i Tonga, Williamson (1924, I:151) quoted Monfat, who used the records of the early Roman Catholic missionaries in Tonga, as saying:

> In them the civil and political power is exalted and sanctified by the divine power; wherefore their authority is boundless. They dispose of the goods, the bodies, and the consciences of their subjects, without ceremony and without rendering account to anyone. *Tuitonga* appears, and all prostrate themselves and kiss his feet . . . The Tongans refuse him nothing, exceeding his desires. If he wishes to satisfy his anger or some cruel fancy, he sends a messenger to his victim who, far from fleeing, goes to meet death. You will see fathers tie the rope round the necks of their children, whose death is demanded to prolong the life of this divinity; more than once you will see the child smile as it is being killed.

[342] Cook (1809, V:428) reported that if the Tu'i Tonga entered
[784] a house belonging to a subject it became *tapu* and could never
be inhabited by its owners, so there were houses specially built
for his reception when travelling. There was even a special
[195] 'language' to be used by those of lesser rank when they addressed
or talked about the Tu'i Tonga, and similarly a language of respect
was used in addressing or talking about other chiefs.

643 The Tu'i Tonga was both the temporal and spiritual ruler, at
least until the fifteenth century. While Tonga was occupied by a
173 fairly small population, the combining of spiritual and temporal
authority in the office of Tu'i Tonga appears to have worked adequately for a time. However, a succession of murders of the Tu'i Tonga during the fifteenth century led the twenty-fourth Tu'i Tonga, Kau'ulufonua Fekai, to create the new office of *hau*[1] (temporal ruler) to take over secular responsibilities while the Tu'i Tonga became *'eiki Toputapu* (sacred ruler). The new position of *hau* was given to one of Kau'ulufonua Fekai's brothers, Mo'ungamotu'a, who founded a dynasty under the title, Tu'i Ha'ataka-

[197] [1] The term *hau* is related to the Fijian terms *sau* meaning 'prosperity, high chief, king', and *sauturaga* or 'noble king'; Capell and Lester (1946:299) conclude that the title *sau* (or *hau*) 'is shared between Fiji, Rotuma, Samoa and Tonga, with possibly an earlier stratum in Tahiti and Hawaii'. The date 1470 for the first *hau* dynasty is cited by Gifford (1929:83), Collocott (1924:179) and Wood (1932:11).

> 164 and accustomed to this plague, or pest of mankind, in these parts, either does not feel them, or is so unconcerned that he walks about as indifferent as though little or nothing ailed him.

753 776 Afflicted with their traditional ailments, as well as the newly introduced ones, and lacking knowledge of either their causes or cures, the Tongans attributed these misfortunes to the anger of the gods or the displeasure of the spirits of deceased kin. Accordingly, they believed that there was a direct connection between the efficacy of medicine and the power and truth of the god, whether the medicine was that provided by the missionary or by the heathen priest.

797 758 Fortunately for the cause of the mission, the missionaries at Nuku'alofa were more successful in combating disease than John Thomas had been at Hihifo. Nathaniel Turner wrote of their experience in this regard:

> I must just observe in this place that our success in this respect has been the means of bringing many over to our cause from different parts of the Island. When a cure has been wrought, the individual has gone home to his friends, and they all beholding what has been done for him, the whole family, and, in some instances, families have come over to live at Nuku'alofa, and attend to religious instruction. (N. Turner to Committee, 6 May 1831, WMMS 1818-36, item A2832)

The importance of this aspect of the missionaries' work soon became apparent, and consequently dispensary hours had become part of their regular activities.

797 439 The missionaries' goods—articles of trade—were highly prized by the Tongan people, and these also helped to turn the interest of the people towards the missionaries and their work. 'If I had good trade', wrote John Thomas, 'it would not only be a saving of time, but tend to produce a good feeling upon the minds of the natives towards us and the good cause' (Thomas, Journal, 2 June 1826). [342] [177] Even John Thomas's dwelling house was something of great wonder to the people. It was the first European house built in Tonga, having two storeys with various apartments, with panel doors in front, and glass windows, and was something which they had never seen before. These things captured their imagination and became the chief topics of conversation not only

000 Tongan men and women. Wild or cultivated Pandanus leaves,
291 coconut fronds, and stems of wild plants such as Hibiscus
824 tiliaceus or Eleocharis dulcis are sources of fiber from
287 which the various types of ta'ovala are made. The tapa
248 cloth or ngatu is prepared from the inner bark of the
paper mulberry plant (Broussonetia papyrifera), which is
291 planted as a crop in the bush gardens. Belts or twine used
824 to hold the garments in place are often made out of either
coconut or Hibiscus fiber.

342 In the case of housing or shelter, the role of the
241 agricultural system is again of considerable importance as
342 a source of materials. Table 19 is an enumeration of
128 housetypes found as part of the survey of 192 allotments on
Tongatapu. Although it is often difficult to distinguish a
342 "small wooden" house from a "large wooden" house, there is
no doubt that almost half of the major dwelling units are
342 of the traditional thatched variety (fale Tonga). A fale is
824 constructed with plaited coconut fronds for walls and roofing; coconut and other local timber for poles, beams
and framework; and coconut fiber and the inner bark of
Hibiscus tiliaceus for lashing and tying the roofing down.
In some cases, varieties of bamboo (Bambusa or Miscanthus)
are used for walls. The leaves of a type of sugarcane, au,
are used in the construction of a superior and long-lasting
thatched roof. Even wooden houses are often constructed
partially or entirely from local timber.

342 partially or entirely from local timber.

Table 19. Frequency of specified house types in the sample of 192 Tongatapu town allotments (some allotments had more than one family dwelling).

Village	Large Wooden	Large Brick	Small Wooden	Tongan Fale	Number of Houses
Nuku'alofa	71	11	19	56	157
Fo'ui	7	1	0	11	19
Niutoua	7	0	2	4	13
'Utulau	1	1	1	3	6
Tatakamotonga	9	2	2	14	27
Fua'amotu	4	0	0	10	14
Urban	71	11	19	56	157
Non-Urban	28	4	5	42	79
TOTAL	99	15	24	98	236

241 The agricultural system also provides numerous household accessories, tools and utensils, traditional exchange items, and attire for ceremonial or social occasions (Appendix E).A

Monetary Needs

434 Much of the average Tongans' cash income comes directly or indirectly from the agricultural system. In the sample survey of 141 households, most sold coconuts or

A [See Category 137, pp. 377-431--Analyst.]

CHAPTER V

PLANT ASSOCIATIONS AND AGRICULTURAL PRACTICES ON TOWN ALLOTMENTS.

125 Data were collected during a survey of 192 town
allotments, 113 in Nuku'alofa and 79 in the rural villages
of Fo'ui - Ha'avakatolo (20), Niutoua (12), 'Utulau (24)
and Fua'amotu (16) (Figure 3).A

351 Town allotments on Tongatapu average about one-half
342 acre or less and usually contain a sleeping house (fale
343 mohe) and, depending on the type and size of household, a
number of other structures, including separate kitchens
(peito), other smaller sleeping houses (fale mohe), out-
351 houses (fale vao), and washhouses. (Fale kaukau). Other
improvements may include fences, water supply systems, and
351 livestock pens. The vegetation complex ranges from almost
241 untended to highly cultivated subsistence and ornamental
gardens.

In the discussion of gardens on bush allotments, the
241 acreage of different crops was considered; however, owing
128 to the limited cultivable area on town allotments, only the
presence and relative abundance of crops and important
tree species will be discussed. No consideration will be
given here to commercial crops and fallow vegetation
because they occupy negligible areas on town allotments.

A[See Category 116, p. 14--Analyst.]

351 **Selected Agricultural Practices and Conditions**

342 All allotments had at least one main sleeping house or fale mohe (Table 43).

351 342 369 Table 43. Frequency occurrence of specified housetypes on 192 town allotments (113 in Nuku'alofa and 79 in rural villages) (The numbers in parentheses indicate the number of allotments with more than one of a given housetype).

Housetype	Nuku'alofa Number of Occurrences	Rural Number of Occurrences
Large Wooden	64 (3)	27
Large Brick	11	8
Small Wooden	19 (1)	5
Thatch	56 (3)	42
TOTAL	150 (7)	82

[343] The rural areas have a lower percentage of large wooden houses than the Nuku'alofa area. The frequency of occurrence of other structures such as separate kitchens (peito), outhouses (fale vao) and wash houses (fale kaukau) reflected no significant differences between the rural and urban areas.

351 245 [417] A large number of allotments, particularly in Nuku'alofa, were fenced with either barbed wire or living fences (Table 44). Cordyline terminalis (si) generally

241 range of subsistence products.

241 The average town allotment generally has at least one
351 main dwelling or sleeping house (*fale mohe*) plus a number
[342] of other structures, such as separate kitchens (*peito*),
[343] wash houses (*fale kaukau*), outhouses (*fale vao*), and in
[369] some cases pig sties. On a majority of the town allotments
in Nuku'alofa, and to a lesser extent in the rural villages,
fences were found around the entire allotment or around
[417] portions used for keeping livestock. Fences for livestock
[245] were usually of barbed wire. Those which were more ornamental
or used to delineate property boundaries were often
living fences or hedges, most commonly of *Hibiscus spp.*
241 and *Nothopanax spp.* Wells, rainfall catchment systems, and
312 private water pipes were common on town allotments in
369 Nuku'alofa. In the rural areas, water was generally
obtained from centrally located village water pipes.

241 Within this setting, a great variety of livestock,
231 staple crops, and other valuable plants and trees were
found. Almost all allotments had some livestock; over
half had chickens, dogs, and pigs, while horses, cats, ducks,
241 goats, and cattle were found on several. In Nuku'alofa, the
231 law prohibits pigs and other animals except poultry roaming
369 free. On rural town allotments, however, over half of those
sampled had loose pigs. These constitute a major deterrent
241 to the cultivation of certain crops. Staple crops were
369 cultivated in limited acreages on about half of all town

Langa Fonua Formed In 1954

Women's work in Tonga is recognised 462
throughout as having a vital part to play
in the natural structure and economy. It 643
was after Queen Salote returned from 462
her triumphant participation in the Coronation 575
of Queen Elizabeth in London
in 1953 that she called together a group
of leading women in Tonga, particularly
members of the Pan-Pacific and South-East
Asia Women's Association, to discuss
the formation of a local equivalent
to Women's Institutes.

Out of this came the *Langa Fonua*, 462
which was inaugurated on May 7, 1954. 575
It is a movement dedicated to the progress 873
of home and community through
the continuous education and inspiration
of the women throughout the villages.

Among a population estimated in [161]
1955 as 56,000 there are now approximately
1,000 members in Tongatapu and
the other islands, with 23 branches in
Tongatapu alone, each with its own
Leader and Secretary, while the policy and
general directive for the movement comes
from the Central Committee elected at
the annual general meeting. Queen [643]
Salote is President of the *Langa Fonua*.

Headquarters House In Nuku'alofa

An outstanding feature is the headquarters 342 ●
house in Nuku'alofa, in the
centre of that small town. It is a [351]
spacious, cool, handsomely equipped
dwelling house, surrounded by a wide

342 verandah, with a well-nurtured flower
351 garden at the front and a large stretch
of smooth lawn at the back, edged with
laden banana trees and other useful
sources of food and shade.

575 The *Langa Fonua* House was bought
462 in September, 1957, for £4,500, the
money and Tongan furnishings (mats,
[342] etc.) being collected throughout the
[435] Kingdom by women's groups. It is
used for general and committee meet-
575 ings and for a series of valuable classes
in cookery, sewing, child welfare, first
462 aid, English and Tongan. These classes
873 are attended by members of *Langa
Fonua* from Tongatapu villages and are
taught by volunteer instructors, both
[342] Tongan and European. It is a dignified
yet functional house, preserving in its
family furnishings the quality of a lived-in home.

Five-Day Courses For Women Leaders

575 It was in this house that three five-day
462 courses were conducted by Miss June
873 Summerton of the South Pacific Health
648 Service and myself, and in its spacious
living rooms that we ate and slept and
had our office.

574 We were cared for with that all-inclusive, thoughtful, unobtrusive and capacious hospitality for which Tonga is famous, delicacies or extra equipment frequently appearing from the Palace.

Receptions, dinners, cocktail parties and above all feasts and a gay and totally unsuspected surprise party organised by Princess Melenaite with the

[P.26-D]

[TEXT CONTINUED ON PAGE 27-B]

/41 cont./

346 The construction of some schools and especially of many dwellings
342 built in the European "shanty style" also leave much to be desired
362 from a health standpoint (for example, uninsulated corrugated iron roofs), there having been as yet no effective remedy.

757 The Tongans are largely indifferent to the health service. In most cases of illness they first try self-healing with ancient Tongan herb medicines and massage, sometimes with a small admixture of magic, and if this does not help and the case seems very serious, they go to the doctor. At the same time, there are a few /42/ natives who run to the doctor with a headache or a slight stomach upset, as well as a few who do without any kind of medical help. (92)

> 92. On Nomuka the author saw a woman who, after eating a poisoned shark liver, was very ill and, despite grave danger, did not wish to see the assistant doctor who lived only 300 meters away.

[943] In places where an auxiliary hospital or "dispensary" /cited in English/ is situated close by, the Tongans are beginning to come in with minor cases (coughs, constipation, diarrhea, cuts, boils). The Tongan
757 physicians regard the present situation as being a considerable
177 improvement over the condition 40 years ago. A certain change has surely taken place in the last decades. Thus the old Tongan healing
[656] art (93)

> 93. Various elements of the Tongan healing art were borrowed from the natives of the Fiji Islands (for example, Martin, loc. cit. II. p. 242.)

which was not always fortunate, (94)

> 94. A series of spontaneous attempts at healing often took the place of a diagnosis.

was forbidden by a governmental law and was also virtually repressed
278 by the growing European-type health service. However, some of the
178

/64 cont./

589
162

over 40 years:	12 male	natives
	(8 widowers	"
	1 divorced)	
	5 female	"
	(1 widowed, 1 divorced)	

Thus, among the natives over 40 years of age in 'Uiha there are only 2 men and 3 women who, in the course of their lives, did not enter into a regular marriage.

/65/ The non-married, marriageable persons in the village of Fungamisi (total population 263) may be divided into the following age groups:

under 25 years:	12 male	natives
	21 female	"
between 25 and 40 years:	6 male	"
	5 female	"
	(1 widowed, 1 divorced)	
over 40 years:	3 male	"
	(1 widower)	
	4 female	"
	(all widows)	

Thus, among the natives over 40 years of age in Fungamisi there are only two men who have not yet entered into a regular marriage in the course of their lives.

592 162 The size of the Tongan household, that is the total number of natives living together on one property (married couples, children, resident relatives, see above) amounts to 6.7 persons for Nomuka, 6.5 for 'Uiha and 6 for Fungamisi. The buildings of such a household usually consist of one living (=sleeping) house (or several), (185)

592 342 343

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185. In 'Uhia, 59 households have one house each, 39 households have two, and two households have three such houses; in Fungamisi 36 households have one house each, eight households have two houses each and one

592 /65 cont./

342 household has three.

343 one cook hut, a small "bath" house, and a latrine hut. (186)

186. Of the 100 households in the village of 'Uiha, 12 have no cook hut, 19 have no small bath house and 17 have no latrine hut; in the 45 households of Fungamisi there are six without cook huts, 20 without small bath houses and five without latrine huts.

163 The Tongan family of today has an average of barely four children.
592 (187)

187. The figures worked out by the author for 'Uiha and Fungamisi are 3.8 and 3.7; deceased children were not counted, but included were those who had left to go to school in Tongatapu, etc.

592 In addition, there are adopted children, that is the children of
597 relatives, who are taken in by some families for a rather long period, often until they reach adulthood; (188)

188. For example, children of the husband's sister or brother, the wife's sister or brother.

children of fellow-villagers or other acquaintances are less often
162 adopted. "Adoption" assumes the following proportions: Of 289
597 children under 16 years of age in 'Uiha, 254 live with their natural parents and 35 with their adoptive parents. We find there a total of 23 families with adopted children (14 with one child each, six with two children each, three with three each). In Fugamisi, 11 of the 128 children under 16 years are adopted and live in seven families (four families with one child each, two with two children each, one
597 with three children). These adoptions are very seldom official (that is, for which a registration fee of two pounds was paid by the adoptive parents to the Supreme Court. /cited in English/). Usually, /66/ an adoption takes place if one day the small child of a relative (or fellow-villager) is asked for, and is taken into the household

/126 cont./

69 for example by guaranteeing the new rights of commoners. It is
177 astonishing how all classes of the Tonga people accept, and submit to,
565 this administration of justice, without reservation and as a matter
69 of course. Even the inhabitants of the small, remote islands of
177 the Archipelago eagerly avail themselves of the laws and courts if
184 an injustice done them by anyone seems greater than their equanimity
565 and peacefulness can accept. A full appreciation of this judicial
671 system can be explained chiefly by the way it began: under the strong
[999] influence of the Wesleyan missionaries, the uncontested authority of
the chiefs was transferred to the new government and to the church;
the demands and rights of these two institutions were incorporated
in the laws to which the government with its law courts was able to
give more and more authority. Naturally, the commoners found it
all the more easy to accept the new judicial system since it gave
them many advantages in comparison with the past. After initial
resistance, the chiefs accepted the Christian-democratic laws of
this, at first very church-minded state, probably in part because of
their religious feelings, and especially because resistance seemed
hopeless and would only have worsened their position.

3. THEIR ECONOMIC LIFE

A. Dwelling

a) House and House-Building

342 The Tongan dwellings (sleep houses) today present a very non-
177 uniform picture, for the decline of ancient Tongan crafts as a result of European influences brought about a certain crudeness in the old type of houses, and through the importation of European building material as well as the spread of new methods of construction, there arose a diversity of "modern" types.

346 The sources (346)

/126 cont./

342
(113)

346. On the subject of ancient Tongan house building: J. Cook, *Voyage dans l'Hemisphere Austral*.../Voyage in the southern hemisphere/. II. p. 68; the same, *Beschreibung*.../description/ *loc. cit*. VI. p. 285; G. Forster, *loc. cit*. V. p. 139; W. Ellis, *An authentic narrative*... /cited in English/. I. p. 95; J. Martin, *loc. cit*. II. p. 279 ff.; J. Dumont d'Urville, *Voyage pittoresque* /Picturesque voyage/... II. p. 78; Tischner, *Die Verbreitung der Hausformen in Ozeanien* /The dissemination of house forms in Oceania/. Dissertation. Hamburg 1934. pp. 93/94, 139, 177.

and traditions give us no comprehensive insight into the ancient Tongan dwelling. However, we know that it was a long house with rounded narrow sides. The average house of a chief was approximately 30 feet long and 20 feet wide. (347)

347. See J. Cook, *Beschreibung*...*loc. cit*. VI. p. 285.

342
335 Four (or six to ten) posts were connected with a longitudinal beam on which rested four (six) crossbeams which, with their projecting ends, supported a ridge roof /127/ that was additionally held up by special supports on the framework. Nails and mortise were unknown.
[284]
[824] The beams were lashed together with cords of coconut fiber; these were of different colors (natural-colored, black, red and yellow), and the individual, careful lashings represented "geometric" patterns.
342
824 The roof at the top was about 12 feet high and extended to about four feet beyond the floor. It was covered with sugarcane leaves or--more simply--with coconut leaves. These were plaited together like mats and were fastened like tiles to the rafters. The ancient
342 Tongan dwelling very probably had no walls. As a protection against rain, wind, or lower temperatures, the better houses had curtains of mats fastened together, which could be lowered, while in the simpler houses people made do with mats which they hung up. (348)

/127 cont./

342
(113)
348. The illustrations in Tasman's Journal (Abel Janszoon Tasman's Journal of his discovery... /cited in English/ Amsterdam 1898; the pictures following the 23rd and 25th January 1643) show houses which do not seem to be storage huts and have (apparently plaited reed) walls which are interrupted only by door openings. These illustrations are in contrast to the data in the rest of the sources (mentioned above).

342 The inside of the dwelling was generally one large room. The floor,
352 which was raised about a foot, was beaten hard and covered with
[824] dried leaves and grasses on which lay coconut palm leaves. Strong
mats plaited of reed and curved semicircularly were set up inside
342 the room to divide it up. The dwellings of commoners (on the plan-
565 tations) were of the same construction, but most probably smaller
184 and simpler (for example, always covered with coconut palm leaves and
without the lowerable mat curtains). Besides the dwellings, there were
344 also rather large meeting houses and guest houses of chiefs, storage
343 houses (with walls that slanted inward toward the floor), cook huts,
and boat houses.

342 In ancient Tonga, house construction had a certain uniformity,
178 with each house built for a special purpose corresponding in its
basic elements to every other one that served the same purpose, whereas
today, as a result of the aforementioned changes, there is a
(177) diversity of types to be seen. Dwellings may be subdivided chiefly
into the ancient Tonga form (long house with rounded, narrow sides)
and the types resembling European construction (rectangular or also
square houses that often have a veranda). Different kinds of building
material result in a number of further variations. These, as well as
the proportion of the different types, may be seen in the following
survey conducted in six villages of the Archipelago.

/128/ DWELLINGS

		in Haveluloto (Tongatapu)	in 'O'ua (Ha'apai)	in 'Uiha/'Uiha (Ha'apai)	in Pangai/Lifuka (Ha'apai) (350)	in Fungamisi (Vava'u)	in Tu'anuku (Vava'u)
342 178 184	Ancient Tonga shape:						
	Coconut-leaf roof (349) and walls..........(351)	7	16	38	47	9	15
	Coconut-leaf roof (349) and reed walls.........	1	1	31	7		
	Coconut-leaf roof (349) and wooden walls.......	12	3	3	9	8	1
	Coconut-leaf roof (349) and corrugated metal walls	3	3	8	20	10	4
	Roof of sugarcane leaves and tin walls (352)...			1			
	Shingle roof and wooden walls.................				1		
	Corrugated metal roof and coconut-leaf walls...			4	2		
	Corrugated metal roof and reed walls..........			8	1		
	Corrugated metal roof and wooden walls........	3	4	6	33		7
	Corrugated metal roof and walls...............			11	19		10
342 178 177 184	Rectangular shape:						
	Coconut-leaf roof and walls...................	1	5	1	8		2
	Coconut-leaf roof and reed walls..............		1		4		
	Coconut-leaf roof and wooden walls............	2			1	1	
	Coconut-leaf roof and corrugated metal walls...				1		
	Coconut-leaf roof and sheet metal walls (352)..					1	1
	Corrugated metal roof & coconut-leaf walls with wire netting..........................			1			
	"Box type," corrugated metal roof and wooden walls..................................	7	1	10	55	8	11

/128 cont./ DWELLINGS (cont'd.)

	in Haveluloto (Tongatapu)	in 'O'ua (Ha'apai)	in 'Uiha/'Uiha (Ha'apai)	in Pangai/Lifuka (Ha'apai) (350)	in Fungamisi (Vava'u)	in Tu'anuku (Vava'u)
342 Rectangular shape:						
178 "Box type," corrugated metal roof and walls....	2			7		5
177 184 "Veranda type," corrugated metal roof and wooden walls....................................	6	2	21	68	17	21
"Veranda type," corrugated metal roof and walls.					1	

[824] 349. A few coconut-leaf roofs have sugarcane leaves mixed in; a roof very seldom consists entirely of sugarcane.

350. Here "dwelling" includes all houses that at present serve as dwellings or could serve as such, but are, for the time being, used for other purposes (for example, to store copra) or happen to stand empty, but could be occupied again at any time.

351. Two of these houses have only one rounded narrow side.

352. Tin from large zwieback containers.

/129/ The unequal distribution of types may be partly explained by the fact that 'O'ua and 'Uiha are more unfavorably situated for procuring European building materials (timber, corrugated sheet metal, and container metal); moreover, individual house types simply became more "fashionable" in some villages than in others. The survey also shows that the rectangular buildings are mainly made of timber and corrugated metal, and the native raw materials are used more for the old style of building. After all, the European shape generally

/129 cont./

342 178 177 184 forms a unit with the European building material. However, the ancient Tongan shape still holds its own, as the following list can show more clearly:

Village	Long houses with rounded narrow sides	Rectangular houses
Haveluloto/Tongatapu	26	18
'O'ua (Ha'apai)	27	9
'Uiha/'Uiha (Ha-apai)	110	33
Pangai/Lifuka (Ha'apai)	139	144
Fungamisi/Vava'u	27	28
Tu'anuku/Vava'u	37	40

The settlements of 'O'ua and 'Uiha which are unfavorably located with respect to transport facilities have a considerably preponderance of of houses of ancient Tongan shape. A further Europeanization of the Archipelago could bring about a similar proportion as in the other four villages. However, this development will be relatively slow; for even in the seaport of Pangai and in the villages of Haveluloto and Fungamisi which are near larger seaports, (353) a great many natives cling to the old house shape--for financial and traditional reasons. 342 177 178 435 The prices for corrugated sheet metal and building timber have risen very much; A Tongan must put aside the considerable sum of approximately 300 - 400 £T . (= approximately 2800 -

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353. European-type constructions are, of course, most numerously represented in Nuku'alofa and Neiafu.

/129 cont./

342 178 177 [435] [183]
3750 German marks) to build a European-style house with a small veranda.
For most of the natives this is a goal worth striving for; there are
only a few today who, for their pleasure in the traditional, will
build themselves a "typical Tongan house" with great care and without
using nails. Many have "modernized" the old type with the new building
material. Since a coconut-leaf roof quickly rots under the climatic
conditions, and must be renewed every two or three years, people still
try to provide themselves, for example, with corrugated metal to cover
their roofs, just as they like to cover the walls of their houses with
/130/ it or, even better, with boards. At the same time they do not
simplify the ground plan by straightening the narrow sides, but go to
great trouble to construct the traditional house shape with the rounded
ends by using bulky pieces of corrugated metal and wooden boards. In
a house covered with corrugated metal it can be quite uncomfortable
under the hot sun, especially if the owner has not shaded the roof
with a cover of tapa or wooden boards; in this way, some natives have
developed heart trouble, for example. However, the Tongans would
rather suffer under such discomforts and know that they are thereby
relieved of house-building worries for many years. These "modernized"
Tongan houses, as well as the European-type rectangular constructions
(of corrugated metal and wood) with or without veranda, regarded by the
natives as something special and as the "better dwelling," are usually
342 lived in, after they are finished, until they collapse. Damaged parts
356 of walls and roof are seldom repaired, and almost never are they
given a new coat of paint, although paint is available in the Archipelago. The weatherbeaten, gray, rusting, and, in part, collapsing
buildings resemble those of the slums on the outskirts of some
342 European cities. Yet the oldest of these houses are today at least
50 years old (thanks to the very good material that was still provided

/130 cont./

342 at that time). They have apparently been built in Tonga since the turn of the century.

342 177 For 33 of the European-type rectangular houses in 'Uiha/'Uiha and for 21 of these in Fungamisi/Vava'u, the following building costs /sic/ were obtained:

	in 'Uiha	in Fungamisi
built between 1890 and 1900.............	1	1
1900 " 1910.............	17	3
1910 " 1920.............	4	5
1920 " 1930.............	2	3
1930 " 1940.............	2	3
1940 " 1950.............	4	2
1951.............	3	4

342 178 The "ancient Tonga-style" houses hitherto mentioned do not correspond exactly in their construction to the model of old times.

Their construction (framework) in part resembles that customary in former times. Not only in some houses covered with indigenous [284] material, but especially in those covered with corrugated metal, one [283] often finds a strong and carefully constructed framework with lashings of coconut-fiber cord.

94 dwellings (of commoners) with ancient Tongan ground plan were examined in 1952 in 'Uiha/'Uiha.

3 of these had a "very good" construction which approximately corresponds to the kind described in the old sources (insofar as these give more detailed information on the subject); /131/ only the beams were no longer polished (smoothed over) with the former meticulous care and the lashings perhaps somewhat simpler. These houses were built around 1880, 1931 and 1933, according to the memory of the natives (The 1931 building was first used as a church, then as a dwelling.

44 had a construction much like the ancient Tongan, and can be described

/131 cont./

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178
as "good." These were built:

between 1860 and 1900	4	between 1930 and 1940	4
" 1900 " 1910	10	" 1940 " 1950	13
" 1910 " 1920	3	1951	3
" 1920 " 1930	6		

47 further dwellings showed the ancient Tongan construction simplified and changed: in a few, the four supporting posts were thinner and were moved toward the walls. The framework was often weaker (and even a "stick construction") and also incomplete or augmented with additions (props, supports, etc.). The traditional [177] lashings of coconut-fiber cords were often supplemented or replaced entirely with nails (or with hibiscus-bast lashings, more seldom with European twine). These houses were erected during the following periods:

between 1860 and 1900	1	between 1930 and 1940	4
" 1900 " 1910	2	" 1940 " 1950	21
" 1910 " 1920	1	1951/52	14
" 1920 " 1930	4		

Though it may be assumed that in old times simplified constructions were occasionally erected, which deviated from the typical plan, the figures above seem to show that the proportion of weaker constructions is increasing at present. The increased house-building activity since [161] 1940 is presumably a consequence of the population increase (growing number of individuals of marriageable age).

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'Uiha is a more remote settlement. That is one reason why the traditional construction has prevailed here to the extent mentioned. In a village like Fungamisi which is near the seaport of Neiafu and is subject to more intensive European influences, only one /dwelling/, among the 23 dwellings with ancient ground plan examined in 1952, was found whose construction was quite similar to that of ancient Tonga and deserved the rating "good"; it was built in 1950. The remaining

/131 cont./

342 177 178 22 houses were weaker in construction and more of less simplified and changed. They were built during the following periods:

between 1910 and 1920....1
1920 " 1930....3
1930 " 1940....2
between 1940 and 1950....7
1951....9

342 178 824 If native materials are used, the roof is almost always covered with coconut-leaf mats (pola), which Mariner already mentions for ancient Tonga. (354)

354. J. Martin, loc. cit. II. p. 295.

The much more durable sugarcane leaves, which were formerly /132/

/132 cont./

342 178 824 (231) the roof covering of the "better" houses, are today only occasionally added to the coconut leaves, and are very seldom used exclusively. The reason is said to be a great shortage of sugarcane leaves which is allegedly caused by horses that eat the young shoots.

342 178 (177) (824) Aside from the growing use of new types of building materials (corrugated metal, tin and boards) and nails instead of lashings of coconut-fiber cords (kafa), one should note above all that the present-day dwelling of "ancient Tongan shape" is no longer "wall-less." The mats on the weather sides, which could be lowered or hung up, have been replaced, in the types that seem "pure Tongan," by stationary walls that consist either of coconut-leaf mats (plaited halves of leaves) fastened to slender lateral posts, or are made of reed (kaho) which, in a decorative arrangement, is stuck into the ground along the wall line all around the house and is bound together with coconut-fiber cords. Such "stationary walls" seem to have originated a long time ago. (355)

355. For example, Th. West, 90 years ago, described these stationary walls (Th. West, Ten Years.../cited in English/ p. 45.

342 177 178 The average house of this type today has three door openings: two opposite each other in the center of the long sides and one on the narrow side that is not part of the sleep section. In some houses whose owners did not have any boards when the houses were built, or who attached special importance to building "purely Tongan," knotted together coconut-leaf mats that can be lowered constitute the "door." On other houses of this type boards are used as door frames to which doors made of boards are fastened with metal hinges. In general, these houses with coconut-leaf or reed walls have no windows. As a result of strong solar radiation, a certain amount of translucence of the

/132 cont./

342 matting and the door which is mostly open during the day, it is always
177 sufficiently light inside. The houses of ancient Tongan design, which
178 have wooden or corrugated metal walls, also generally have three door openings which are provided with doors made of boards. Some of these houses have one or two window openings on the long side, which are closed with wooden shutters.

342 Today there is no longer a distinct difference between the
184 dwellings of chiefs and those of commoners. Everyone can and will
565 build a house for himself that suits his taste and, above all, his
(177) economic circumstances. Quite a few chiefs own rather large European-
(643) type houses (some with glazed windows), and the Queen resides in a palace built some decades ago in the style of a European tropical house; /133/ however, many commoners have also built houses for themselves that in size and use of material outdo those of many chiefs.

342 For the size of dwellings the following figures were obtained in
178 the villages of 'Uiha and Fungamisi:
184 Houses with ancient Tongan ground plan:

	up to 6.5m. length & 3.2m. width	up to 8.5m. length & 4.2m. width	up to 10.5m. length & 5.2m. width	up to 11.5m. length & 5.7m. width	up to 13.5m. length & 5.8m. width
'Uiha.......	20	46	26	12	6
Fungamisi...	13	12	2	-	-

The average size of a house with "ancient Tongan ground plan" is 8.2 meters long and 3.9 meters wide in 'Uiha, and 6.4 meters long and 3.2 meters wide in Fungamisi. (356)

356. Calculated from the individual measurements.

(177) Houses with rectangular ground plan:

/133 cont./

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	up to 6m. length & 5m. width	up to 8m. length & 5m. width	up to 10m. length & 7.5m. width	up to 11m. length & 9m. width	over 11m. length & 9m. width
'Uiha.....	5	7	10	9	2
Fungamisi.	8	2	7	3	8 (357)

357. Some of these houses belong to half-castes (Tongan mother - European father).

The average size of a rectangular house is 8.2 meters long and 6.2 meters wide in 'Uiha, and 8.9 meters long and 6.6 meters wide in Fungamisi. (358)

358. Calculated from the individual measurements.

342 Thus the average size of today's Tongan dwelling (for commoners
178 and chiefs) is smaller than that of the ancient Tongan chief's dwelling,
565 which Cook gives as 30 feet long and 20 feet wide; however, it
184 probably corresponds to the measurements of the ancient Tongan dwellings
of commoners and may, in part, exceed them. (359)

359. Especially the "low, very small huts" observed by Cook (J. Cook, Beschreibung... /Description/ loc. cit. VI. p. 285); these were most probably the lodgings of commoners acting as servants and living on the properties of chiefs.

342 The interior of Tongan dwellings has also changed. In the long
352 houses with rounded narrow sides the house still resembles the ancient
178 Tongan model. The floor is covered with dried coconut-palm leaves and
(824) grasses (or now simply with sand) and over this are spread mats
(takapau) (360)

360. These are already mentioned by Mariner for ancient Tonga (J. Martin, loc. cit. II. p. 294.

342
178 plaited of young coconut-palm leaves. However, in many cases the

/133 cont./

342 floor is no longer raised by about /134/ one foot. In such houses
178 greater dampness easily arises, which can cause the inhabitants
[164] rheumatism, among other things. The house built in the ancient Tongan
style--with the slight elevation of the floor--is said by physicians
to be the type best adapted to that climate. The former customary
partitioning of the room by moveable, plaited mats of reed in a
semicircle have today been replaced by curtains of tapa or of cotton
(~~more~~ seldom by board walls) [hanging from] two opposite posts, partitioning
off one of the round ends of the house (in some cases, both
[177] round ends) as the sleeping quarters. The European-like constructions
of the "box type" and "veranda type" (of timber and corrugated sheet
metal) are usually raised one-half to one meter above the ground on
posts and have a wooden floor which is, naturally, dry and, by its
elevation, provides a certain protection against ants, beetles, etc.
[435] This advantage must, however, be dearly paid for in the high cost of
such a house and the often high temperature and bad air inside.
Interior walls with doors subdivide the larger of these houses, whereas
in the smaller ones the sleep area is closed off with a curtain of tapa
or cotton.

344 The ancient Tongan meeting houses and guest houses of chiefs
178 have disappeared. Of larger houses in the villages we find today
346 above all the churches which are built on the ancient Tongan ground
177 plan or as European-like buildings. The schools and kautaha houses.
178 (361) are mostly built of timber and corrugated metal in rectangular shape
and usually do not exceed in size the larger European-type dwellings.
343 The ancient Tongan storehouses have also passed into oblivion. Today,
178 many families no longer own a storehouse; for the rest, simple huts

361. See pp. 134-135, 137-140.

/134 cont./
343 (or various materials and all kinds of shapes) or vacant dwellings
178 serve to store supplies. Almost every household, however, has a cook
343 hut which is usually put up as a "stick construction" with a very
252 simple shape and is covered [on top and sides] with interlaced coconut-palm leaves (*pola*); sometimes bamboo (walls), timber and corrugated
metal are also used. The families who do not own a cook hut cook in
the open (for example, under a large tree) or at a neighbor's, never
[178] inside the dwelling. The ancient Tongan custom of separating dwelling
and kitchen has thus been retained. As a result of efforts on the part
343 of authorities, most Tongan households today have separate latrine huts
514 covered with interwoven coconut-palm twigs (*pola*) or with timber and/
178 or corrugated metal. The /135/ little "bath" houses erected on most
343 properties, in which people wash in a zinc tub or a wash basin, often
515 consist of only three *pola*-walls; some are also built of wood and
corrugated metal and are roofed-over. Boat houses occur now and then
343 in the shape of simple roofs covered with interwoven coconut-palm
leaves, which are supposed to protect sailboats temporarily out of
service from the inclemencies of the weather. Roofed-over work areas
[178] (especially for women) on many properties in the villages have similar,
simple roofs, as in old times. (362)

362. See G. Forster, *loc. cit.* I. p. 139.

342 To sum up, we may say that today in the Tonga Archipelago there
178 are no longer any dwellings which correspond exactly to the ancient
177 Tongan dwelling. However, despite the new building material and the
model of the simpler, rectangular constructions, one-half (and more)
or the numerous types or today show the old form of the long house
with rounded narrow sides. With this has arisen a fusion of the old
and the new which strikes us as strange.

342
463 For house-building in ancient Tonga there were specialists

/135 cont./

342 (tufuanga langa fale). They (with several helpers) erected the chiefs'
463 dwellings and other larger buildings. (363)

363. See J. Martin, loc. cit. II. pp. 96. 279.

342 It is to be assumed that commoners mostly built their houses themselves,
565 especially since Mariner reports that everyone knew how to build a
house. (364)

364. Ibid. p. 279.

342
412 The tools used in house building consisted chiefly of various axes with
[237] stone blades and rasps with rough fish skins. (365)

365. See W. Ellis, An authentic narrative /cited in English/. I. p. 109; J. T. Plant, Handbuch.../Handbook/ II. p. 374.

342 Today almost every Tongan is still capable of building by himself
178 a dwelling with the ancient Tongan ground plan, and there are also a
177 few "laymen" who can erect a European-type house. Besides, there are,
463 as in old times, special house builders living in every village. They
received their training in the traditional way: by working on various
[868] house-building projects they gathered knowledge and experience. A few
342 were trained, European-fashion, as carpenters (for example, in Fiji).
178 Therefore, as a rule, they own an assortment of good English tools (for
177 example, axes, hatchets, adzes, saws, hammers, drills, planes, chisels,
463 caulking irons, screwdrivers, files, clamps, angle irons, levels, tape
412 measures, etc.). Among the rest of the house builders, European axes,
335 transverse hatchets with iron blades and large European machetes, as
all-around tools, replace the equipment customary in ancient Tonga,
which has long since disappeared throughout the Archipelago.

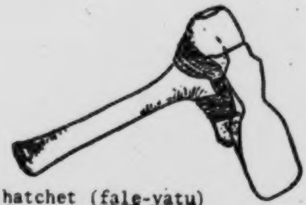
412 /136/ The big axe (toki lahi) is used to cut down trees and cut
up and split trunks. It is usually bought readymade in the commercial
[824] centers of the Archipelago; sometimes the natives acquire only the blade
(approximately 19 centimeters length and 11.5 centimeters maximum width)

/136 cont./

412 and make the handle themselves (length 85-90 centimeters) out of wood
[824] of the toa tree (Casuarina equisetifolia L.).

There are various transverse hatchets; the iron blades are bought
[177] and then hand-shafted as desired. To make a fale-vatu lahi the
[439] natives like to take an ordinary European hatchet blade of the type
[824] which was formerly traded in Tonga by German commercial firms, and
provide it with a forked-branch shaft of the feta'u tree (Calophyllum
[284] inophyllum). The blade which lies crosswise is fastened (lashed) with
[283] coconut-fiber cords (kafa) that are drawn through the eye (provided
for the handle by the European factory). The blades necessary for such
[439] transverse hatchets can at present no longer be bought from merchants
in the Archipelago; the ones in use, which some of their present
owners have inherited from their grandfathers, are therefore

[284]



Transverse hatchet (fale-vatu)
with European blade (Expedition Collection, No. 102)

of special value and handled with great care. Sometimes the rear
abutment on the shaft, which has to absorb the blow, is protected against
splintering by having some six nails driven in. In a typical specimen
of the fale-vatu lahi, the measured length of the blade was 18 centimeters and the maximum width 15 centimeters, the length of the handle
[342] was 47 centimeters. In house-building, longitudinal grooves are cut
[335]

/136 cont./

412 into the coconut-palm pieces of trunk with the fale-vatu lahi in order
(342) to make the rafters (kahoki) (see below). This transverse hatchet--
(335) with the same shape and shaft--also occurs in a smaller version known
(322) as fale-vatu si'i, and is used preferably to "plane" the rafters
(chip off unevenness). The toki taha-taha and the toki tele are used
412 for the same purpose. The smaller hatchets (handle length about 30
177 centimeters) have European planing blades, again mounted crosswise,
284 with the cutting edge fastened to a forked branch with a kafa lashing.
824 Here too the handle usually consists of feta'u wood. In the case of
the toki tele are used for the same purpose. The smaller hatchets
(handle length about 30 centimeters) have European planing blades,
again mounted crosswise, with the cutting edge fastened to a forked
branch with a kafa lashing. Here too the handle usually consists of
feta'u wood. In the case of the toki tele, parts of a coconut husk are
used as a blade cover. Another small transverse hatchet (handle length
25 centimeters), the toki unga ko, may be mentioned. Here a European
gouge approximately 20 centimeters long with its curvature resting on
an insert of toa wood is attached with a kafa lashing to a feta'u
forked branch. Owing to the insert, this blade can be turned and thus
makes possible various semicircular cuts.

The transverse hatchets mentioned here are often also bound with wire (or hemp) instead of the coconut-fiber cords.

412 These transverse hatchets are an interesting fusion of ancient
177 Tongan and European tools: the natives have generally replaced their
stone blades /137/ with the various more efficient metal blades, but
have retained the old Tongan type of shaft so that they can use the new
tool for their traditional working methods (see below). (366)

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366. The transverse hatchets are used not only in house-building, but also in woodwork generally (for example, boat-building, see p. 351-353).

/137 cont./

412 The large machete (hele pelu) is generally bought readymade
[439] (total length 60-70 centimeters), and is easily obtainable in the
commercial centers of the Archipelago. The knife tip which is bent
[824] slightly upwards is usually cut off. The frequently broken handles are
skilfully replaced by self-made wooden shells (feta'u wood). This
machete is an all-purpose instrument. In house-building it serves for the most diverse tasks wherever something needs to be cut, knocked off, or leveled (planed), and for many Tonga it replaces the small transverse hatchet. Beyond that, the knife has a wide range of uses in the hands of men, women and children, from cutting finger- and toenails to various tasks on the plantations.

342 Many Tongans (especially commoners) feel it is important to erect
463 what they regard as a well-built, solid dwelling on their property, and
331 secure the help of a specialist who carries out the work with several
helpers (relatives of the "owner," his friends and other villagers). If, later, a second house is needed on his place, he usually builds it himself (alone or with the help of members of the family and other relatives or friends).

In 'Uiha/'Uiha (Ha'apai), in 1952, 76 dwellings with ancient Tonga ground plan were carefully examined.

342 Of these, 54 were built by house builders (or Tongans who were
463 regarded as house builders). Until recent times their work was acknowl-
465 eged only with food. In only seven cases was the builder paid with money
331 (sums between 8 and 40£T.); four of these cases involve an impoverished refugee from Niu Fo'ou who, in 1951, worked only as house builder in 'Uiha, hence these cases should be regarded as exceptions. In two cases that took place 50 years ago, the builder was remunerated with mats and tapa, while in a case that occurred 30 years ago a rather large quantity of coconut-fiber cord (kafa) was given.

342
463
331
The remaining 22 houses were built by natives who are not special-

['Uiha (Ha'apai)]
[Fungamisi (Vava'u)]

331 /137 cont./
342 ists. In 15 cases the owner of the property was his own builder, in
463 seven cases relatives, friends or villagers built the house for him.
Of these structures, 19 were built after 1940.

In rare cases were houses built by builders of "laymen" alone.
[465] Usually as many as eleven helpers worked together, whose work was
remunerated only with food.

342 The cost of materials for all houses (ancient Tongan ground plan)
435 range from 0 (only native material, or donated old corrugated metal
and building timber) to 70£T. (new corrugated sheet metal, building
timber, nails).

342 /138/ In the same town, the same year, 19 European-type dwellings
463 were carefully examined. Of these, one was built about 50 years ago by
331 a white man, 15 were erected by Tongans who are house-builders (or
regarded as such), and three structures were put up by natives who
were not specialists, for their own use (some 50 years ago). Here
[465] too the work of the builders was largely acknowledged only with food.
In two cases (1908 and 1943) the builders were paid with mats and tapa
and in three cases (1910, 1951, 1951) with money (6 - 10£T.). The
helpers involved (1-8) each received only food. The cost of material
[435] for these buildings runs between 20£T. (material bought secondhand)
and 400£T. (good material, medium-sized house).

Corresponding surveys in the same year in Fungamisi/Vava'u showed:

[465] Of 24 carefully examined dwellings with ancient Tongan ground plan, only five were erected by house-builders (or by Tongan regarded as house-builders); four of these were self-built, in the fifth case the work was acknowledged only with food. The remaining 19 houses were put up by Tongans who are not specialists; in 18 cases the natives built for themselves, in one case a son coming from another

331 /138 cont./
342 village built a house for his mother. Fourteen of these "laymen"
463 buildings were put up after 1940. The builders or "laymen" seldom
[602] worked alone. In most cases they had up to five helpers (often
[465] relatives) whose work was acknowledged only with food. In many cases
[435] there was no outlay for building material, since the builders
limited themselves to native raw materials or were given only
corrugated metal and building timber; for the rest of the buildings,
up to 12£T. was spent for corrugated metal, building timber and nails.

331 342 Of 16 European-type houses examined at the same time, 11 were
177 built by Tongans who are house-builders (or regarded as such). The
463 work of the builders (some of whom were relatives) was acknowledged
[602] only with food, except in two cases; one was given building material
[465] (wood), the other was given money. Five houses were built by non-specialist natives for themselves.--Altogether, two houses were built
individually. For the rest of the 14 structures, 2 to 20 helpers were
[465] co-workers. Their work was here too acknowledged only with food while
they were building, except for one case in which money was given. For
[435] building material--aside from gifts--between 20£T.(old material) and
1000£T. (good material, very large house) was spent.

342 These investigations can give us various clues. We realize that
most Tongans are apparently still capable of building by themselves
(Fungamisi example) a simple dwelling (ancient Tongan ground plan).
[463] However, as a result of the "liberation" of the people, the house-
[331] building specialists, of whom there were some even in ancient Tonga,
seem to have obtained a greater range of work insofar as many commoners
depend on them for help (as did many chiefs in former times). The
342 178 wish to have a well-built house in ancient Tongan style is considerably
greater, according to the figures quoted above, in a more remote
village like 'Uiha than in a settlement near a harbor, like Fungamisi

/139/

342 where, considering the buildings in the seaport of Neiafu, the old-
178 style Tongan houses may be regarded as mostly self-built makeshifts
in a light construction. (367)

367. See p. 193.

342 The dissemination of "European-type construction" (wood-corrugated
177 metal-rectangular buildings) need not necessarily--on the basis of the
463 aforementioned figures--lead to an increase in house-building
specialization; some skillful Tongans, even as "laymen," know how to
build such types of houses. (368)

[333] 368. All European-style houses are, incidentally, today built by Tongans without guidance by whites. The natives can also build a European shed on concrete bases and even know how to make concrete tiles by themselves (from the necessary imported material).

342 Moreover, we learn that money which circulates rather freely in the
436 Archipelago has heretofore played no great role in the employment of
463 house-builders. The efforts of specialists and helpers are mainly
465 acknowledged, in the old way, simply with good food (earth oven)
331 during the building. (369)

369. Even in the "modern" work of erecting European-style structures.

342 The building material for the construction of a house with the ancient
435 Tongan ground plan and coconut-palm covering can still, as in old
178 times, be procured without financial expenditure, so that the entire
process can be carried through without an outlay of cash, (370)

370. If the "owner" does not have enough pigs and products from his plantation at his disposal, he will of course have an indirect cash outlay in buying flour, sugar, corned beef, etc., in order to feed the builders.

and only with the cost of good food for all workers; this applies to a remote settlement ('Uiha) as well as to a village near a seaport (Fungamisi).

/139 cont./

000 342 177 436 (Fungamisi). As a result of the growing use of European building materials for the old-style Tongan houses and especially as a result of the introduction of the European-style houses, however, money takes on an increasing importance for the procurement of material in house building.

342 423 425 A Tongan who plans to build a house must of course, decide where it is to be located. If he has not yet obtained property in the village (api kolo) (371)

371. See p. 173.

from the government and does not wish to build on the property of a relative, he must hand in a proper request to the authorities for the 342 assignment of a plot of land. Meanwhile he will soon start building preparations, for these take a fairly long time. The preparations--as in former times--consist chiefly of procuring the building material and obtaining food supplies to feed the workers.

342 283 824 /140/Making sufficient quantities (several thousand meters) of coconut-fiber cord (kafa) for lashing the framework and for fastening the coconut-leaf covering is still an important prerequisite for building a dwelling in ancient Tongan style. 283 The natives gather large coconuts with especially long husks (niu kafa), remove these and divide them into four (eight) pieces which they place in a basket weighted with stones and lay in a shallow place in the sea for about a month. Then they beat them on a block of hard wood (or on a stone) with a stick or toa wood 30 to 40 centimeters long, in order to loosen the fibers and remove the crumbly material between them. After the fibers have been dried in the sun they are rolled in small bundles (372)

372. From 5 to 25 fibers each, depending on their thickness.

with the palm of the hand on the naked thigh (or between two palms),

342 /140 cont./
313 trees (*Bischofia javanica* Bl.) or *toa* trees (*Casuarina equisetifolia*
[824] L.) at his disposal on his plantation (bushland)--as in old times--
[439] and does not wish to sacrifice valuable breadfruit trees to make posts,
then he must go to an uninhabited island where--again as in old ways--
he will look for suitable trees, or else he will buy imported Canadian
or New Zealand building timber which, moreover, is preferably used
342 instead of coconut palm trunks for the beams. To build a house in old
177 Tongan style, which is supposed to have board walls and be covered
439 with corrugated sheet metal, and especially to put up a European-style
construction, a person must, in good time, buy enough corrugated metal,
imported wood, nails and possibly cement in the commercial centers of
the Archipelago and transport them to his native island in the small
cutters.

342 /141/ Since a man must generally supply food for the specialist
264 (in case such a one is building the house) and all his helpers (other-
574 wise the orderly course of the work might easily be endangered as a
result of growing apathy), he must, in due time, raise quantities of
food plants and, in addition, depending on the size of the understaking,
fatten a number of pigs. If a man does not wish--or is not able--to
offer hospitality in this ancient Tongan style, he must have in readiness sacksful of flour and sugar, large cans of corned beef, tea and,
if possible, loaves of bread, in order to provide meals.

342 After all preparations have progressed to the point where they
331 can guarantee a steady flow of work, the day is set for the building
to begin. The work force assembles on the day announced; the work
begins.

The following account of the building of a house in November/
[177] December 1951 on Nomuka may show the juxtaposition (or fusion) of old
[178] and new:

331 /141 cont./
342 owners. The palms chopped down with the big axe (*toki lahi*) (see
476 above) are cut up with the same axe into nine-foot (or eleven-foot)
[313] lengths and, for further preparation, are placed on two smaller
342 (properly notched) logs. The "jacked-up" logs are then provided with
476 longitudinal grooves by two Tongans standing opposite each other
335 who, with the big transverse hatchet (*fale-vatu lahi*) (see above),
412 strike blow after blow, each /worker/ forming a longitudinal groove;
331 /142/ the two longitudinal grooves meet as they are struck, so that the
second of the two workers can, with his blows, simultaneously tear
the bark and wood out of the resulting fissure and thus lay it open.
After turning the log slightly on its supports, another Tongan,
/applying/ blow after blow with the big axe, slits the resulting work-
piece (the rafter-to-be) on one side. After a further turning, the
two men start cutting another lengthwise groove with the transverse
hatchet. The process is repeated successively until 10,12 or 15 rafters
(*kahoki*), depending on the circumference of the trunk, are marked off
all around the log. Then the *kahoki* (which already have a preliminary
slit on one side) are separated from the log with the big axe and a
pointed club (crowbar). With a machete the rough chips are removed
and the rafters are loaded on two-wheel, horse-drawn carts and taken
to the building site in the village.

331
342 There are no reports about how rafters were made in ancient Tonga.
335 However, it is to be assumed that today's work which seems so primi-
178 tive to us was carried out in the same way in those days, and that
177 there is a change only with respect to the axes, the iron blades of
the transverse hatchets and the measurements with English foot rules.

342 The groups of natives, each working on the felled coconut palms
335 (young and old separately, but also individual older men among the
476 young ones), busily engaged, though soon stopping for rather long
461
331

331 /142 cont./
342 335 rest periods, make 110 rafters by early afternoon. Then they go back
476 to the building site and around 16 o'clock they each have an earth-
[461] oven meal, prepared in the meantime by their wives and other women,
[264] from the supplies of the "boss"; each man is served a portion (yams,
[262] manioc, *kape*, bananas, pork, beef) in a traditional coconut-leaf
[415] basket and with it a coconut mug containing fish soup. Thereafter the
[516] work in the village is resumed: five Tongans sitting crosslegged
"plane" the rafters by striking them with the small transverse hatchets
(*fale-vatu si'i*, *toki taha-taha*, *toki tele*) or with the machete, two
natives cut more rafters out of trunks which are brought from the
plantations, and 12 Tongans hold a kava gathering at the site to
"sanction" the building project, while three women prepare the
[264] evening meal. This is eaten when twilight sets in (around 18:30):
[262] everyone present gets three or four fried cakes and highly sweetened
orange-leaf tea in coconut bowls. Around 19 o'clock everybody goes
home.

342 On the second building day, while several younger natives split
313 off and plane more rafters and a kava circle of elders is gathered on
335 the building site, six Tongans and the carpenter go to the plantations
331 (after the fried-cake and orange-leaf-tea breakfast) to get sections
of curved beams (for the narrow sides of the new building). According
to an apparently very old system, these are cut out of coconut palm
342 trunks that have grown with a special curvature. Again the men work
335 with the big axe and the big transverse hatchet. From each palm a
331 curved section of beam is obtained. Around 13 o'clock- after they
[264] have cut up the seventh palm, they grow listless, build a fire, roast
a few green bananas in it, have a snack and then go back to the
village, leaving the remaining five palms of the day's quota for the
342 following day. Around 14:30, /143/ *'ota 'i mango* (a refreshing drink
272 of grated green mangoes, grated coconut meat, water and sugar) is
264

/143 cont./

342 served, and at 15 o'clock everyone gets his basket with his share of
272 the earth-oven meal: manioc, kape, sweet potatoes and salted
264 beef, along with a coconut mug of beef broth. In the afternoon, while
342 a few natives continue splitting and planing rafters, others, with
331 the huo lafa-lafa (shovel iron), (374)

374. See p. 233-234.

level the ground measured off by the carpenter for the house. Under a
[276] temporary corrugated metal roof a kava group of ten older men is
[571] gathered. At 18:45 fried cakes and orange-leaf tea are again handed
[264] out. Then the men slowly go home; a few natives take along a
basket of leftovers from the afternoon meal.

[332] On the third day of work, more rafters and curved sections of
[412] beams are made; the ground plan of the house (in ancient Tongan style)
[177] is marked out, and an approximately 15 centimeter excavation is dug
(tools: two huo spade [a small iron blade set on an old digging stick;
[276] see page 234] and a European shovel). Four older Tongans form a kava
[571] circle. The meals are the same as on the previous days. The work
[796] stops toward 16 o'clock, for at 17 o'clock the usual church service
(Friday) is held.

[335] On the subsequent work days the posts and beams (native and
Canadian wood) are cut and planed with the carpenter's tools
(transverse hatchet, saws, planes, adzes); the work on the rafters
(total number 250) also continues. The meals corresponds to those
[276] of the preceding days. The kava gathering of older men continues to
[571] assemble on the building site.

342 Finally, the four customary posts that are to carry the roof are
331 set in place. However, the carpenter intends to give the house more
335 room and to replace the "disturbing" posts with special supports of
Canadian building timber, leading upward obliquely from the side walls;

/ 143 cont./

342 hence only temporary posts are set up. Into the grooved ends the men
331 place the horizontal beams, their position tested with an English
335 water level, and raise and adjust the posts with a traditional lever
[177] tied to each post. Four crossbeams are laid over the longitudinal
[401] beams, and the parts that belong together are lashed with coconut-fiber
[284] cords (kafa) that have been soaked in water. Then the men place two
more longitudinal beams over the ends of the cross beams and fasten
them the same way with kafa. They put up the ridge lath and ridge
[284] board, supported, for the time being, by provisional posts, at the
proper height above the construction and hang the notched rafters to
the ridge lath with coconut-cord lashings. The downward extending
rafters rest on the longitudinal beams lying on the ends of the
[177] crossbeams. Here they are lashed and at the same time nailed on with
European iron nails; this is the part that must then bear the main
burden of the construction. The rest of the longitudinal beams are
fastened to the lower part of the rafters and to the upper part of
the roof with coconut lashings and nails. Then the roof laths are
lashed (from the inside) and nailed down. The traditional roof
brackets are attached to the crossbeams.

342 Up to this point the entire work procedure--except for the
331 European or Europeanized tools and the use of nails--resembles the
177 ancient Tongan house construction. But now, in place of the coconut-
335 leaf mats (pola) (to be plaited by the women) /144/ pieces of
corrugated sheet metal are nailed onto previously applied strips, as
roof covering. Then three curved sections of a beam are joined to
form a round beam (corresponding to one of the rounded narrow sides
of the house). Instead of the customary system of coconut-fiber
lashing, they follow the European method of boring through the
obliquely sawed ends with a drill and joining them in iron clamps

/144 cont./

342 with wooden tenons. Two of these round beams form the framework of
331 one narrow side of the roof; as in old times, they are set on the ends
335 of the main horizontal beams (375)
177 (284) and fastened to them with coconut-fiber lashing. Rafters and roof
(412) laths are tied over them and nailed, and here, too, strips and
corrugated sheet metal--laboriously cut with sheet-iron shears--are
nailed on.

It is only now, when the roof is finished, that the men apply themselves to the walls which are built in a quite "modern" form.
(333) They pour a cement foundation all around the house (according to the ground plan) in which screws are inserted. To these they screw beams which form the basis for a wall framework to be built between the foundation and the edge of the roof. On this framework they nail the wall boards, allowing for window- and door- openings. Then they take out the four posts which are so important for the ancient Tongan house (which here were set up only temporarily) and replace them with supports extending obliquely from the base of the walls to the joints. The roof now rests partly on the walls--a very considerable change for Tonga.

342 331 The rest of the work is slowly carried out, for the general enthusiasm has abated, especially since the rations have become scarcer (after the boss's last beef has been consumed). Because Christmas preparations are now beginning in the village, only a few willing workers appear at the building site. They cover the floor of the house with sand, paint the outside of the new building with light blue oil paint, attach a gutter and start to make the doors, until the building material gives out and the work stops. However, the

---

375. That is, the horizontal beams resting on the four posts.

/144 cont./

331 house is now already occupied.

342 This house building took 29 work days. After a forced pause
[461] of several weeks to procure further building material from distant
Nuku'alofa, the work will soon be finished.

331 In this way, European tools (or parts of tools) and material,
342 as well as European building methods have found their way into
177 Tongans to build a house has not been displaced by this specialization.
178 In fact, division of labor among the workers in building a house and
their compensation seems little changed. This persistence is also
evident in the way the Tongans largely retain their ancient building
methods.

b) Household Equipment

177 European influences have brought about enrichment and change in the field of household equipment.

352 /145/ The ancient Tongan furnishings of a dwelling consisted
415 essentially of seat mats, sleep mats, headrests, baskets of various
354 kinds and sizes (to hold clothing, combs, fish hooks, tools, etc.),
bottle gourds, wooden bowls, lamps (burning coconut oil) and the
all important and typical multi-footed, large kava bowl. (376)

376. See W. Ellis, An authentic narrative /cited in English/ I. pp. 95, 96, 108; J. Cook, Beschreibung.../Description/ loc. cit. VI. p. p. 285; G. Forster, loc. cit. IV. p. 329; V. pp. 139, 148; Ch. Wilkes, Narrative... /cited in English/ III. pp. 15, 16.

177 As a result of contact with whites the Tongans adopted various European household articles which seemed to them either more useful than corresponding ones of their own, or particularly "representative." In this way, what to the European eye seemed like the "emptiness" of the Tongan house was to some extent filled.

[352] Today, the inside of a dwelling looks somewhat as follows:

/149 cont./

177 ones of their own, or are simply regarded as "representative." This
178 change has, however, not essentially altered the ancient Tongan style
of household living. The great majority of natives use the seat mats
and the sleep mats, as did their forefathers, and have merely made
their traditional way of life more comfortable with the European
178 novelties. The difference between the furnishings of commoners and
565 nobles, which to some extent undoubtedly existed in earlier times, has
disappeared. With respect to Tongan cultural assets this must have
meant a loss in quantity and quality for nobles and a gain for
177 commoners. The acquisition of European things is today solely
dependent on financial means.

342 /150/ To sum up, we may say about the Tongan house and its
177 furnishings that all changes, as great as they may be in detail,
178 have by no means changed the function of the dwelling. As in old
times, it is the place where the family sleeps and rests. (396)

> 396. The set-up of the Tongan household and the distribution of houses on the individual properties in the village may be seen on page 80 ff., and the number of houses in the various villages on page 134.

[461] No work is done in the dwelling except the mat-plaiting of the women,
[285] and the cook area is still located in a separate hut.
(252)

B. FOOD

a) Cultivation

241 The Tongans were and are primarily farmers, and their cultivation
178 has undergone no fundamental change through European influences.
(177) Very probably the size of the land cultivated today in the
Tonga Archipelago is as large as it was in ancient Tongan times. The
[161] considerable decrease of cultivation in the first half of the past
century (as a result of the civil wars from 1797 to 1852 and the
transition to village settlements) has as regards to the area of

/208 cont./
000 above under *ta'o-vala kie*).

kie Tonga:

285 This likewise very valuable mat, today the most finely plaited
292 in Tonga, is popularly worn by bride and bridegroom at their wedding
[585] and also occasionally as a *ta'o-vala* at important church services and
[565] festivities. A commoner will not wear it when he visits a headman
(in order not to elevate himself), but the nobles themselves may wear
[422] it at all times. In the various villages only a few natives own such
285 *kie Tonga*. Even today, as in the past, (536)
178 such mats are bought from Samoa where they are made even better and more
exquisitely; however, the difficulties involved in procuring these in
particular are too great to make possible a general distribution in the
Archipelago.

285 The material for these mats is also the *lou kie* species of
824 pandanus (see above).

6. Various Mats

pola:

285 By "*pola*" the Tongan means the coarsely woven halved coconut
[824] palm leaves of specific (rectangular) shapes that are plaited for
[342] various purposes. They are used for the many sections of walls and
roofs of ancient Tongan style dwellings, as well as for the "mat
doors" put together out of several *pola*. The coconut leaf mattings
(*pola kai*) (537)
on which festive meals are served should also be mentioned here.

fala tuki kava:

This special mat serves as a pad on which the kava roots are

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439 536. See J. Martin, *loc. cit.* I. p. 162.

537. Two joined, coarsely plaited halves of coconut palm leaves.

/219 cont./

287 usually does herself with a wooden rod and blackish-brown color (a
[388] mixture of koka-color and the soot of burned Aleurites).
[531]

The tapa lengths are folded and rolled into balls and kept in the dwelling of the owner who, in the course of time, cuts off pieces as needed.

287 There are three types of tapa, according to the methods of dyeing:
531

1. ngatu tahina:

[386] This most important, because universally used, tapa is dyed a solid brown with the exception of the border and certain parts of the decoration. The patterns are brought out with dark brown or blackish-brown lines. They represent, for example, the /220/ adornment of
[212] chieftains, striking or historically noteworthy landscape motifs, symbols of the modern Tongan state (star, crown, dove, swords), parts of ancient Tongan chieftains' houses, as well as the new palace of the king and desirable European objects such as the bicycle and gramaphone, and some also have inscriptions (block letters) which explain the meaning of individual decorations (for example, KOE SISI O TAUFAAHAU = this is the ornamental belt (sisi) of the Taufa'ahua; KOE KALAUNI = this is the crown; KOE PASIKALA = this is a bicycle; KALAMIFONI = gramaphone).

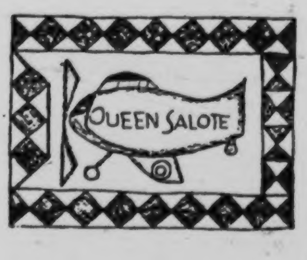
287 The ngatu tahina is used as a bed cover (also bed pad) for men
[513] women and children, to partition rooms and as ceiling covers in the
[353] house, as wedding clothes, to lay a corpse to rest, as a gift, and
[342] as a dance dress; in each case sufficiently large pieces are cut
[292] from the roll.
[764]
[431]

2. ngatu tapa'i ngatu:

287 Tapa of this kind has patterns outlined in dark brown (blackish-
531 brown) on a surface that has been left more or less white. Their
[212] patterns are also symbols of ancient and modern Tonga (for example,

/220 cont./

287 531 212 a certain flower ornament



Pattern on a ngato tapa 'i ngatu: a spitfire fighter plane (Expedition Collection, No. 27)

of a chief, parts of ancient Tongan buildings and houses of chiefs, striking landscapes, the queen's fan, the flag of Tonga, a spitfire fighter plane that the Tongans gave England in the second World War, and a nautical mark in the harbor of Neiafu), and some of them are explained by block-letter inscriptions.

287 (513) (353) (342) (431) (292) (764)

Bast cloth of this kind is used especially as bed covers, to divide up and decorate rooms in the dwelling as well as to cover the ceiling of these, and as gifts; it is also used occasionally as a wedding and a dance dress and to cover a corpse.

3. ngatu 'uli:

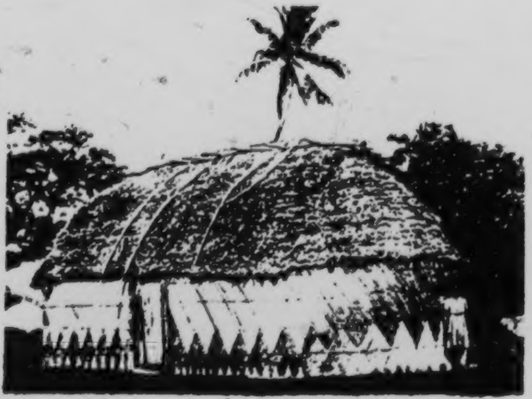
287 531 (386)

This type of tapa is dark brown to blackish-brown (brown koka color and blackish koka and Aleurites soot). It is decorated with print panels (chiefly with the "manulua" pattern, namely, cruciform triangular patterns), or /221/ else patterns are dispensed with and the lines of the coconut fiber cords that were previously wrapped around the "drum" stand out as the pattern on the entire blackish surface.

287 (513) (431) (764)

This tapa is used chiefly as bed pad (on the top mat), as a wedding gift and as a cover on which to lay a corpse.

342



5. Dwelling in ancient Tongan style (kaho walls)

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482
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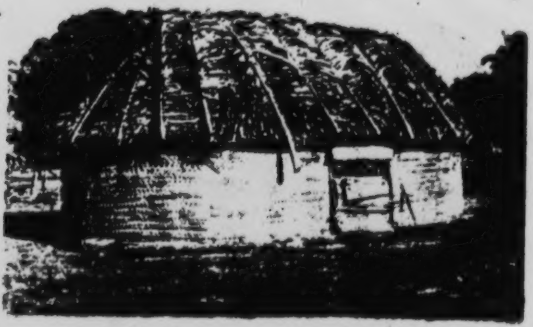
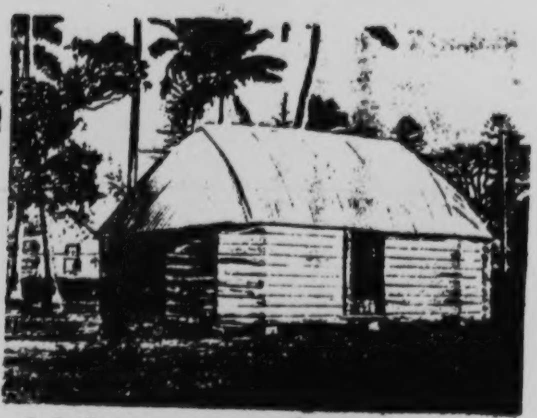
292

6. Funeral procession; pallbearers in foreground

[End Plate 3]



7. Dwelling in ancient Tongan style (pola walls)



8. Dwelling in ancient Tongan style with board walls and corrugated metal roof

[End Plate 4]

342
177

9. European dwelling

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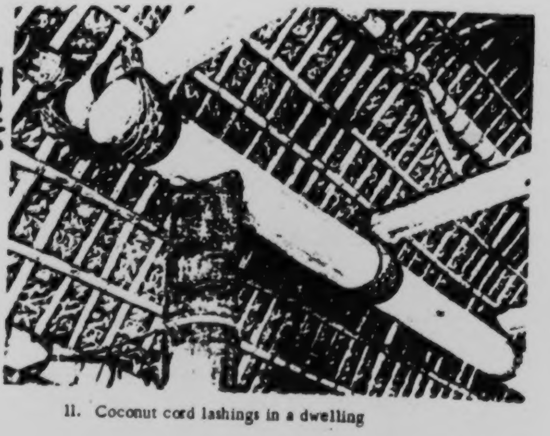
331

10. Construction of dwelling in ancient Tongan style with modern materials

[End Plate 5]

284
342
335



11. Coconut cord lashings in a dwelling

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335
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12. Making rafters with the transverse hatchet fale-vatu

[End Plate 6]

291
252

15. Building an earth-oven

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291
342

16. Making copra: drying halved coconuts

[End Plate 8]